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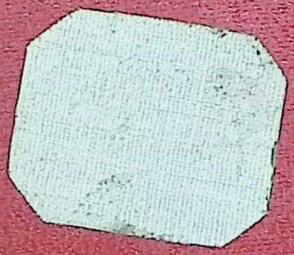

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ASIAN JOURNAL OF PSYCHOLOGY AND EDUCATION
1982, VOLUME : 9, NUMBER 1, PAGE 1–2

National Stereotypes of University Students in Northern India

V. V. Upmanu and P. N. Vasudeva
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We are living in the era of science and technology. In the midst of radio-active rubble the ultimate question facing the third world is that of sheer survival. Racial prejudices, misunderstandings and tensions and at the national as well as international level are gaining momentum. There is always a threat of war. Possibly, a scientific study of stereotype towards the different nationals might go a long way to understand and appreciate each other's difficulties, since it is only by acquiring an adequate knowledge of beliefs attitudes and stereotypes that an attempt could be made of mutual understanding and cooperation, which may ultimately help to materialize the concept of one world. It is befitting to quote Lippman (1922) who recognised stereotypes as "the way in which the world is imagined (that) determines at any particular moment what men will do" (p.23). On this basis it was thought advisable to study the stereotypes of post-graduate students from a University in Northern India towards the different nationals.

Subjects

The subjects were 100 males and 100 females randomly selected from the faculty of Arts and Social Sciences. Their age ranged from 19 to 27 years with a mean and standard deviation of 22. 24 and 1.98 years, respectively.

Procedure

The students were given a list of 48 adjectives, which were taken from Katz and Braly's (1933) list, as well as from newspaper reports. Those adjectives which best describe

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the nationals in question were selected. The students were asked to choose adjectives most characteristic of each of the 8 ethnic groups, from a stereotype checklist containing 48 adjectives. The 10 most frequently checked adjectives for each group were rank ordered, separately for males and females. They were further analysed in terms of the proportion of favourable versus unfavourable traits for each national.

Results and Discussion

The study revealed the following findings : the Russians, Japanese, Americans and English occupied the top ranks in terms of the proportion of favourable traits. These nationals were variously characterized as intelligent, industrious, progressive, efficient, practical, and alert (common for these 4 nationals). For the Russians and Japanese all the 10 most frequently checked adjectives were favourable. The Americans, however, were also seen as destructive and materialistic ; and English as materialistic, boastful and deceptive. Regarding stereotype about the Chinese, only 3 out of 10 were favourable in our study. They were seen as cruel, revengeful, aggressive, rude, unreliable, destructive, selfish, alert, progressive and patriotic. The general aggressive and deceitful picture of the chinese, in the light of 1962 aggression on India and other international misdemeanours can be the reasons for the very strong unfavourable stereotypes towards the chinese. Interestingly enough, completely different and negative attitude was shown in the characteristics assigned to the Pakistanese, Iranians, and Bangla Desh. The Pakistanese (with whom Indians were engaged in an armed conflict in 1965 and 1971) were the most rejected group in terms of the assigned traits (all the 10 unfavourable). They were characterized as revengeful, cruel, lazy, rude, unreliable, deceptive, suspicious, quarrelsome, talkative and selfish. It might be because of our strained political relations with pakistan during the last few years. The Iranians and Bangla Desh, however, were also characterized as tradition loving peoples. The study also revealed no significant difference in the sterotypes of males and females. possibly, the stereotypes about the nations included in this study seem to be influenced by socio-political factors.

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ASIAN JOURNAL OF PSYCHOLOGY AND EDUCATION
1982, VOLUME : 9, NUMBER : 2, PAGE 3–7

Development of Self-Concept During Adolescence

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Self-concept is a life long process that grows and develops continuously in social setting. An individual is not born with a self-concept nor does he inherit it but he forms one as a result of his experience and capacities. Self-concept is an required image of the individual. As a result this image changes like any other dynamic behaviour of the individual from early to later stages of his life.

Nash (1970) reported that it is a dfficult question to decide just when the child becomes aware of himself as distinct from objects or from others ; but certainly 'You' precedes 'I', that is parents and other familiar persons are recognized before self-awareness begins. According to Gale (1969) the child gains a growing awareness of self as he begins his interaction with the significant people in his environment.

Strang (1957) thinks that changes in the individual's self-concept may occur at any time during his life, but especially at the beginning of each development phase. Strang reports Ausubel (1952) who concluded that an important step in the development occurs when the child strives to break away from the complete dependency of infancy.

As far as the empirical research evidence is concerned in the field of development of self-concept over years, little attempt has been made so far to study the growth and to obtain developmental trend of self over years either longitudinally or cross-sectionally. Wylie (1961) also found the lack of studies till then and she reported some of them as that of Ames' (1952) report on nersery school children who could built up a development picture of the sense of self as it appears to change from age to age.

The author recognizes the guidance of Dr. (Mrs.) Pratibba Deo, Professor of Education, Bombay University, Bombay. The manuscript is a part of autho's Ph. D. thesis degree awarded by Nagpur University, Nagpur.

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Wylie (1961) reports another study conducted by Perkins (1958) who using fourth and sixth-grade children, obtained a significant increase in self ideal congruence over a six month period and found the sixth grade children showed greater selfideal congruence than did the fourth-grade subjects.

Adolescence is one of the most important stage in human development. Considering the paucity of empirical findings in the field of development of self-concept during adolescence it would be worthwhile to study it. Self-concept can be considered as having three major aspects, *i. e.* Parceived self (what the individual thinks he is like), Social self (his perception of others' perception about him) and Ideal Self (what he would like to be).

Development of Perceived self during adolescence period would be considered in this paper.

METHOD

Sample. The sample consisted of 880 adolescents ranging from age 13 to 20; studying in the middle schools, high schools and colleges of Amravati (Maharashtra). Every attempt was made to make the sample representative of the adolescent student population of the city of Amravati.

Tools. An inventory to measure the self concept was developed. It consisted of 63 adjectives carefully selected after a number of try outs. Each adjective had a five point rating scale under each aspect of the self-concept. The content validity of the inventory was carefully established by discussing it with the experts. Test retest reliability of the inventory came to .78, .73 and .76 for the Perceived-self, Social-self and Ideal-self aspects of the self-concept respectively.

Procedure. The Self concept Inventory was administered to the sample in a group of 40-45 students. They were urged to give true responses and were guaranteed of complete secrecy of the infomation they supplied.

RESULTS

The results obtained are tabulated in the following tables :

Statistical treatment. Means of the Perceived self (P. S.) were calculated for each age group (13 to 20) separately. Analysis of variance of the eight means was done and F calculated. *t*-values for the differences between the means of all the relevant pairs were also computed.

Table 1

Means of P. S. 4. for All Age Groups.

Age in years

	13	14	15	16	17	18	19	20
Ms	190.31	195.65	192.47	190.83	192.44	185.80	187.34	193.85
N	83	114	157	132	144	106	79	65

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Table 2

Analysis of Variance of the Means of the P. S. for Various Age Groups

A. Sum of Squares and General Mean

1. General Mean = 191.27
2. S. S. between Means = 7534.50
3. S. S. Within Groups = 387646.83

B. Analysis of Variance

Source of variation	*df*	*Sum of squares*	*Mean square (variance)*	*S. D.*
Between Ms	7	7534.50	1076.36	
Within Groups	872	387646.83	444.55	21.08

$$F = \frac{1076.36}{444.55} = 2.43$$

The F is significant at .05 level but not at .Ol level.

Table 3

Differences Between the Means of the Various Age Groups and their Significance.

Pairs of Ages	*Means*	*Diff. bet. Ms*	*t*	*Level of Significance*
13 14	190.31 195.65	5.34	1.57	N. S.
14 15	195.65 192.47	2.18	1.24	N. S.
15 16	192.47 190.83	1.64	1.09	N. S.
16 17	190.83 192.44	1.61	0.54	N. S.
17 18	192.44 185.80	6.64	2.32	.05
18 19	185.80 187.34	1.54	0.40	N. S.
19 20	187.34 193.85	6.51	1.64	N. S.
14 18	195.65 185.80	9.85	3.60	.01
18 20	185.80 193.85	8.05	2.22	05

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Discussion and Conclusions

Table 1 shows the means of the different age groups.

Analysis of variances of all the means are shown in Table 2. The F of 2.42 is significant at ·05 level of confidence.

Table 3 shows the difference between the means of every two successive age groups. It is interesting to note that no differences between the means of the each pair, (except one *i. e.* 17-18 which is significant at .05 level) are statistically significant. The same table shows that the differences between the means of the age group 14-18 and 18-20 are statistically significant.

The following conclusions can be drawn on the basis of these results :

1. Considering the no statistical significance of 13 to 17 it can be concluded that these changes in the P. S. during this span of adolescence are chance changes ; meaning that the P. S. is somewhat stable over these years.
2. The P. S. is highest at 14.
3. The P. S. is significantly low at 18 as compared to what it is at 14.
4. From 18 onwards it rises again and is significantly higher at 20 as compared to its level at 18.

The comparison of the development of P. S. of the two sexes during adolescence is still much more interesting.

Table-4 shows the means of the males and females for 14, 18 and 20 and 13,16 and 20 age groups respectively. These findings are graphically shown in Fig. 2.

Table 4

Means of the P. S. for Male and Females and the Differences between them at Ages 14, 18 and 20 and 13, 16 and 20 respectively.

Sex	*Pairs of age*	*Means*	*Diff. bet. Ms.*	*Direction of diff.*	*t*	*df*	*Level of sig.*
	(i) 14	192.56	9.12	–	2.32	125	.05
	18	183.44					
Males							
	(ii) 18	183.44	11.35	+	3.39	132	.01
	20	194.79					
	(i) 13	190.94	9.64	+	2.00	78	.05
	16	200.58					
Females							
	(ii) 16	200.58	16.08	–	1.96	37	.06
	20	184.50					

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The findings clearly show the opposite trends in the development of the P. S. of the two sexes. In case of the males the P. S. is at its highest level in the beginning of the adolescence, it then slowly goes down and reaches its lowest level at 18 and again it shows an upward trend and reaches higher level at 20. The curve is like the curve of the combined sample (Male = 545 + Females = 335) as shown in fig.—1.

The P. S. of the females is at its low level in the beginning of the adolescence, it slowly rise and reaches its highest level at 16 and then it declines slowly and reaches its lowest level at 20. It will be worthwhile to trace out the reasons of these opposite trends in the development of the P. S. of the two sexes. We may find them in the differential treatment given to the two sexes in Indian homes.

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A Studay of Rorschach's Indices of Intelligence

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A study was conducted to verify the relationship between some of the Rorschach's indices (E. M. W. F + % and dd) of intelligence and Block Design Tesi Scores (converted into Io). 100 undergraduate male students (17-21 years) served as sample. A high degree of correlation between Rorschach's indices of intelligence and intelligence test scores expressed in terms of IQ was observed. It was concluded that E. M. W. F. + % including dd may be safely used in diagnosing intelligence, and cultural variations do not affect them materially.

INTRODUCTION

A considerable number of studies have so far been conducted to investigate Rorschach's (1942) explicit claim. *i. e.*, intelligence can be diagnosed on the basis of the responses given for inkblots but it is still doubtful as to what are the most revealing protocols of intelligence. However, these protocols E. M. W. F+ % Z. A and others have commonly been included in sphere of researches (Armitage, Greenberg, Pearl, Berger and Dastan, 1955 ; Beck, 1950 ; Klopfer and Kelley, 1942 ; Majumdar and Mukerji.

M, a sign of movement, *i. e.*, perception of movement in human, animal and inanimate objects, has been proved to be a strong indicator of intelligence (consalvi and canter, 1957 ; Palmer, 1955). Cronbach (1921) reports it as an agent of imagination and

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creative impulses arising from within. But Freeman (1962) finds movement (Mainly human movement) as the indicator of inventive and creative abilities Vs stereotyped thinking and confirms Rorschach (1942). Hirt (1962) warns against the danger of double meaning which *M* carries. This may lead to some confusion in the interpretation of intelligence. A score of 15 *M* may reflect fine imagination, stability and integration of personality. On the other hand, it may reflect considerable maladjustment in the form of preoccupation, day-dreaming, excessive fantacy, even obsessional development. However, a significant relationship between intelligence test scores and *M* has been demonstrated by a good number of researchers (Altus and Altus, 1952 : Holzberg and Belmount, 1952 ; Singer, et al. 1956).

In measuring height of intelligence Rorschach (1942) lays stress on the whole response which is represented by W, *i. e.*, Subject's perception of the blot 'as a whole'. He reports it as a sign of abstracting or theoretical behaviour. Freeman (1962) also regards *W* as an index of higher levels of capacity for intellectual organisation and abstraction. The fact that *W* responses are conceptualized to subject's psychical richness of associative activity has been advocated by Allen (1958). But here again Hirt (1962) finds some barrier, for *W* having a double meaning can creat confusion as well as contradiction in diagnosing the intelligence. Nevertheless, a significant and positive relationship between intelligence test scores and *W* responses have been reported by a number of investigators (Altus and Thomoson, 1949 ; Klopfer and Kelley, 1942).

In the sphere of intellectual measurement, the most important variable described by Rorschach (1942) is F+or accurately perceived form. Klopfer and Kelley (1942) have demonstrated a significant correlation between intelligence test scores and form accuracy level. On the basis of their study Majumdar and Mukerji (1968) have reported F+as a good indicator of intellectual develompment. According to them F+is the index of meticulous tendency in the individual. However, a different note has been sounded by Baumler (1973) who did note find a significant correlation between form interpretation variables and performance in intelligence test.

The sign *dd* is regarded as tiny detail. This very protocol is used when the subject informs about the perception of a minute part, nevertheless, a clear cut detail of the blot. It shows the depth of perception and the everyday observations confirm that only the intelligent person can go deeply into the stimulus situation or judge the stimulus critically. Thus *dd* responses may be another good index of intelligence.

The present study aims at investigating the relations, if any, between intelligence test scores (converted into IY) and above mentioned protocols E. M. W. F. + % including *dd* to broaden the scope of findings of the previous studies in this area.

METHOD

Sample. The sample consisted of 100 male subjects, selected randomly from the residents of student's Hostel of Bhagalpur University. They were non-psychology students of degree classes. Their ages varied between 17 to 21 years with a mean age of 19 years.

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Procedure. The subjects were individually tested with Rorschach's inkblot test (RT) and Block design test (3D) according to standard procedure. Normally one subject was administered both the test in one session.

Rorschach (Inkblot Test (RT). RT is a projective test of personality structure. RT responses are coded in three categories, *i. e.*, location, determinants and content on the basis of the inquiry after the responses on all the 10 cards have been taken. The interpretation is done on the basis of these codings. The present investigation, is however, confirmed to frequency of some protocols and therefore, on complete interpretation is attempted.

Block Design Test (BD). BD is a performance test of intelligence. It is included along with passalong and cube construction test in.

Alexandar performance Battery. It is also included in WAIS and has the highest correlation with the total WAIS scores. The BD scores, are converted into the mental age according to the norms provided for the Block design test. The mental age is again converted into intelligence quotient (IQ).

RESULTS

The purpose of this study was to determine the relationships between Rorschach protocols E M, W, F+%, dd and Block design test scores (converted into IQ). To meet this objective, Product Moment Correlation was computed between Rorschach indices of intelligence and intelligence test scores expressed in terms of IQ. The results are summarized in Table below.

Showing the Correlations of Rorschach's protocals, M. W. F+%and *dd* and Block design test scores (converted into IQ).

Variables	*N*	*R*	*P*	(*df* = 94)
M & Intelligence Quotient.	100	.37		.01
W and Intelligence Quotient.	100	.35		.01
F+% & Intelligence Quotient	100	.29		.01
dd & Intelligence Quotient	100	.41		.01

The present results show a high degree of correlation between Rorschach indices of intelligence and intelligence test scores (converted into IQ). The correlation between E M and intelligence Quotient is ·37 which is significant beyond ·01 level of confidence. The Coefficient of correlation is ·35 (P=·01) in case of W and it is ·29 (P=·01) in case of F+%. A correlation of ·41 is found between dd responses and intelligence Quotient. The *r* value is significant at ·01 level of confidence.

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DISCUSSIONS

According to Rorschach (1942) introverts have rich inner lives and the richness of inner life is represented by M. Jabin (1971) has reported that introverts are better learners than extroverts and it is a fact that intelligence facilitates learning. Therefore, it may be inferred that introverts are more intelligent than extroverts. New, M, being the index of introversive tendency, may be logically captioned as the index of intelligence too. Secondly, Nickerson (1969) has found empirical supports for the Rorschach hypothesis which is the projection of movement related to Kinesthetic imagery. It is more or less confirmed that such a kinesthetic imagery is related to intelligence. Therefore, it is clear that if M is the kinesthetic imagery, it must have a relationship with intelligence. Furthermore, Freeman (1962) has reported M as an indicator of inventive and creative tendency of the individual and it is beyond doubts that intelligent persons are more creative and inventive. Observations of Hasan and Butcher (1166) as well as Ginsberg and Wittemore (1963) have also confirmed a highly positive correlation between creativity and intelligence. Hence, M being a correlate of creativity is worth identifying as a significant correlate of intelligence. Considering the relationship between M and intelligence it is interesting to note that M has been supported as a measure of the delay function of the ego (Nickerson, 1969) and on the other hand, the outcomes and survey of past works by Levin et al. (1959) emphasize the relationship between the delay function of the ego, measured by M and general intelligence. According to them it seems clear that the inhibition process bears a relationship to intelligence test performance. Wiener (1957) also, working in personality oriented framework, demonstrated that "suspiciousness" was correlated with features of intelligence test performance and with the level of intelligence. Therefore, E M may be presumed as a correlate of intelligence test scores.

Explanations for the greater accurancy found in the relationship between W and intelligence test scores (converted into IQ) can be visualized in the light of the two apparent characteristics of W, *i. e.*, a sign of abstracting or theoretical behaviour and one's tendency of psychical richness of associative activity. For the justification of W as an index of intelligence we may say on common observations that his tendency, *i. e.* abstracting or theoretical behaviour is seen in such persons who possess higher degree of intelligence. With this tendency, intelligent persons judge the information very critically and then confirm or reject them. Obviously, it reflects their theoretical or abstractness in principles which show accuracy in their judgement as well as the tendency to remain consistent or independent. It proves that there is a correlation between one's abstracting or theoretical behaviour and one's intelligence. Therefore, taking W as a key to one's abstracting or theoretical behaviour, it reasonably be established that W is an index of intelligence. So far the second characteristic of W prescribed for the explanation of its relation to intelligence is concerned, we may argue, that the tendency of psychicalrichness of associative activity commonly shows one's potentiality for learning the situation. Learning, as S-R theorists consider, is an association between stimulus and responses. If one has a rich associative

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activity he may learn the situation easily as intelligence facilitates learning. Hence a tendency to psychical richness of associative activity contains intelligence. Therefore, it may reasonably be considered that W, being the index of a tendency of psychical richness of associative activity, can safely be taken as an index of intelligence too.

The accuracy of *F*+% as an index of intelligence may be explained on the basis of the study by Majumdar and Mukerji (1963) wherein it has been reported as strong indicator of one's meticulous tendency which can roughly be described as a deep insight for analysing even the subtle aspects of a particular situation. If we go through the lives of creative thinkers, it may easily be seen that they have a higher level of intelligence which enables them to have a deep insight into the situations as well as ability to analyse them minutely. It is thus quite acceptable that if one is intelligent, a greater probability of meticulous tendency would have to be there. Therefore, if F+% denotes one's meticulous tendency, it will naturally reflect one's level of intelligence. The relationship between F+% and intelligence test scores (IQ) may be further determined on the basis of our understanding of Ego Psychology. Ego psychology just provides a special clue that a sound and healthy ego condition is the centre of personality organisation from which the individuals gain identity and continuity (Allport, 1961). Further, strength/soundness of the ego may generally be defined as the capacity to organise, synthesis, plan, perceive and above all, to excercise control over behaviour in a dynamically coherent fashion (Korchin, 1960). These conditions are reflected on the Rorschach through controlled production of good form (Majumdar and Mukerji, 1968). The integerity of ego is a sure index of healthy adjustment and it is strongly depicted by Venkata Rami Reddy (1975) that more intelligent Students are better adjusted than the lesser one. Therefore, it may be inferred that intelligence and ego strength are related to each other. Likewise, F+%, being an index of ego-soundness, should also be an index of intelligence.

dd has been conceptualized as reflecting the capacity of one's depth of perception. Although there is no direct evidence regarding the relationship between depth of perception and intelligence however, Thurstone (1938) has rega rded perceptual ability as a factor of intelligence. In this perspective it may be argued that minute and deep perception should indicate better perceptual ability and hence better intelligence. Thus *dd* also serves as an index of intelligence.

The results therefore, lead us to conclude that M. W. F t %, including *dd* may be safely used in diagnosing intelligence. It may also be said that culture does not affect them severely as there is greater similarity in the results verifying the above mentioned protocols in diagnosing intelligence in India and abroad.

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A Comparative Study of The Attitude of Married and Unmarried Women Towards Religion, Equality of Women and Birth Control in Relation to Their Adjustment

M. A. Shah and Km. Mukul Varshney
St. John's College, Agra

Present conditions in Indian society are becoming more and more complex and difficult for young men and women. The main problem is the adjustment for the married women in the new environment. The present study was specifically taken in relation to the attitude towards religion, equality of women, birth control and adjustment. The sample consisted of married and unmarried girls and results showed that married girls were more mal-adjusted as compared to the unmarried girls both were not in favour of religion. The unmarried girls were more in favour of equality of women as compared to married girls but married girls were more in favour of birth control as compared to the unmarried girls.

INTRODUCTION

India is a developing country and the change in social and cultural tradition is taking place very repidly, The present conditions in Indian society are becoming more complex and difficult for young men and women. There are large number of problems which they have to cope with, e. g. they have to deal with the problem of marriage, in which the parrents are more involved than the young ones. However the mental tension and the psychological problems accompanying the arrangement of marriages affect the

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behaviour of the young adults. In case the marriage taking place men and women both are involved and new problems come, namely the adjustment to the new environment, fulfilling the demands of joint family and also keeping up the demands of the social prestige and maintaining status, has telling effects on the young ones, especially the women. Some times women have to earn to maintain the status and thus have to deal with the problems which influence the children, All these problems and many more have been further complicated because of the westernization, urbanization and Industrialization. The investigator thinks that these problems have affected their whole adjustment as well as their attitude towards the number of children, religion and freedom of women.

Previously Religious beliefs were taken for granted and even minor deviation from the traditional views were not tolerated. However in modern times, due education. the dogmatic and traditional beliefs are not much emphasized, Now every thing is not to be taken for granted dogmatically, but the older generation has not cared to explain and give basic concept of religion to their children regarding traditional practices. The result is that the present generation is confused and sceptical about such beliefs.

Another related problem is comparatively new, *i. e.* right of women in the changed social context. Women themselves earn and contribute to the family income and, therefore, they naturally demand equal right in the family affairs. But the traditional concept regarding women presents obstruction in the achievement of this right. The impact of such conditions is very felt on the adjustment and progress as well as attitude of the girls both married and unmarried.

A closely releated problem to the religious beliefs and freedom of women is birth control. The need of the hour is the limited and manageble family. But religious beliefs by implications are against such limitation. Hences the young couples are rather caught in a dilemma.

These observations led the researcher to investigate the present problem and make a survey of literature concerned. The reseracher could not find any satisfactory solution which could have answered the questions raised through the above observations. For Example, the following studies were found representative of the investigations made so far.

Thomas and Bergen[1] studied with a social psychiatric view, the psychological misfunction and the role of psychiatry in social change. The emphasis was on social process as it related to the development of the self and on understanding the self in social action. Guidelines for social psychiatric intervention and for aidings individuals in maintaining identity, continuity in the face of social change were formulated.

P. Nataraj[2] studied the social distance within and between castes and religious of

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1 Thomas, C. S. and Bergen, B. J. "A social psychiatric view of psychological misfunction and the role of psychiatry in social change."—*Archives of General Psychiatry*, 1965. Vo 1, 12 (6) p. 539-544.

2 Natraj, P.—Social distance within and between castes and religious groups of college girls"—*Journal of Social Psychology.*, 1965 (Vol. 65 (1), p. 135-140.

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college girls. She found that all religious as well as caste groups have no social distance towards their own groups. Each group had at least some distance towards other groups. Social distance is more intense among religious groups than among caste groups. Among religious groups Hindus and Jains were more conservative but Muslims were least conservative.

Similar attitude of Indian students towards marraige roles was studied by K. L. Sharma[1]. He found that males continue to appear more male dominant while females seem more equalitarian.

Gaffneys[2] studied a psychological reflections on marital love and contraception. He concluded that "our teaching on marital love and birth control is against the natural law," but expresses a hope that 'in a more open, permissive church society," additional factual information will find a psychological climate for reconsideration and change.

M. C. Agarwal[3] studied adjustment among college students. He concluded that arts students were better adjusted than science students. Girls were better adjusted than boys. Adjustment of arts boys in the college adjustment area was poorest compared to other areas. Adjustment of arts girls was best in the home adjustment area but poor in the personal and health area.

It is obvious from this brief review that the main problem of the young women in the present changing social context has not yet been investigated in the right perspective. Hence the researcher formulated the following hypotheses :

1. There is no difference in the adjustment of married and unmarried girls.
2. There is no difference in the attitude of merried and unmarried girls towards religion.
3. There is no difference in the attitude of married and unmarried girls towards equality of women.
4. There is no difference in the attitude of married and unmarried girls towards birth control.

METHODOLOGY

For the purpose of this study a sample of 50 married and 50 unmarried girls was selected. The age range of the two group was more or less similar, namely between 18 years and 30 years All the elements were studying in the college in undergraduate and post graduate classes. Their socio-economic status also was that of the middle range.

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1 Sharma, K. L. "Attitudes of Indian students towards marriage roles," *Journal of Social Psy.* 1971 V. 83 (2) p. 299-300.

2 Gaffneys Louis., "Psychoolgical reflections on marital love and Contraception., *Journal of Religion & Health*." 1971, Vol. 10 (1) pp. 11-22.

3 Agarwal M. C. "Adjustment among college students." *Indian Psychological Review.* 1970, Jan. 6 (2) p, 85-87.

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The following tests were used to investigate these problems.

Adjustment Inventory

This test was constructed by A. K. P. Sinha and R. P. Singh. The inventory has been prepared in Hindi and it has 87 items. They reported a split-half reliability co-efficient of .94.

Religion Scale

This was a 25 item, Likert type scale developed by Bardis (1961). It measures positivity of attitude towards religious faith and other religious referents. He reported a split-half reliability of .90 based upon *N* of 130.

Equality of Women

For equality of women, the test consisting 60 items was used. This test was developed by Prasad Punnose from the Kirk Particks study of the attitude towards the status of women. Reliability of original scale was .85 and that of the present scale was 79.

Birth Control Scale

This was 22 item likert type scale developed by Wilke (1934). He reported a split half reliability co-efficient of .91 based off *N*. of 61.

RESULT

Table

Showing differences in attitude of married and unmarried girls towards religion equality of women and birth control and their adjustment.

Category	*Scale*	*N.*	*Mean*	*O*	*'t'*
1. Married girls	Adjustment	50	29.36	9.96	1.702.
2. Unmarried girls.	Inventory.	50	26.16	8.83	$P>.10$
1. Married girls	Religion	50	93.18	15.68.	1.55
2. Unmarried girls.		50	88·66	13.25	$P<·01$
1. Married girls.	Equality of	50	5.66	8.66	4.18
2. Unmarried girls.	Women.	50	13.68	10.45	$P>.001$
1. Married girls	Birth Control.	50	77.02	5.87	2.81
2. Unmarried girls		50	73.60	6.21	$P>.02$

CONCLUSION

For finding out the differences between the married and unmarried groups the *'t'* ratio technique was used. In case of adjustment, it was found that married and unmarried both the groups tended towards maladjustment but married girls were more maladjus-

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ted as compared to the unmarried girls, They differ significantly at .10 level of significance which was not satisfactory., and therefore the first hypothesis was neither accepted nor rejected. It may be that with a larger samplethis might become significant but with the present results no such conclusion can be drawn.

Similarly the married and unmarried girls do not differ significantly in their attitude towards religion and therefore the second hypothesis was accepted.

But the married and unmarried girls differ significantly in their attitude towards equality towards equality of women which is significant at .001 level of significance. The unmarried girls have a higher mean and more in favour of equality of women. This is natural because unmarried and comparatively young girls are likely to be more idealistic and have exaggerated views about their birth and position of the society. But in case of married women the attitude towards the equality of women becomes more realistic and based on experience.

In case of birth control also the difference between the two group is significant at .02 level of significance and therefore this hypothesis is rejected. Married women also appear to be comparatively more in favour of birth control as compared to the unmarried group. Hence this hypothesis rejected.

It may be concluded that due to the changing social condition general mental health of the young ones was likely to influence the future generation also. The person at the helm of affairs should look into the problem for the sake of national progress.

Also it must be emphasized that this is the high time that authorities should educate the masses regarding the sentiments and needs of the young generation in respect to the right of women, and birth control. The so called superior class (men) should take into consideration to needs and rights of fair and weaker sex because their adjustment and proper attitude is the basic to the mental health and adjustment of nation as whole. Also the basic concept of religion must be explained to avoid the chaos and vices of western culture due to indifferent attitude and wrong presen ation of religious teaching.

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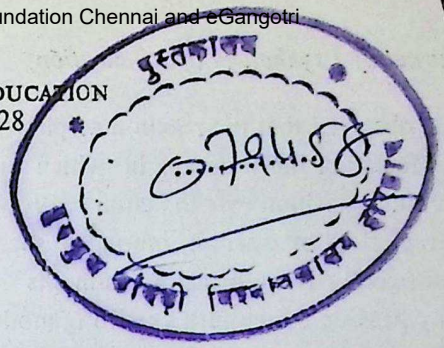

Factors Affecting the Parental Acceptance of Pre-School Children

Kiran* and M. B. Singh**
Punjab Agricultural University, Ludhiana

INTRODUCTION

The attitudes which an adult displays as a parent go back in large part to his own childhood and the kind of relationship he enjoyed with his own parents. They reflect both the impact of the parent-child relationship on personality development and the influence which parents exerts as models of parental role and function.

Parents are often placed in the position of continually seeing the discrepancy between their hopes and goals and actual accomplishment in child development. Many parents set high standards in terms of the performance they expect from their children in living with the family, with his peers and at school. However they frequently find the child falling far short of their expectations (Clausen, 1964). Setting high goals brings discouragement both in the child and in the parents. Parents have always tried to prepare children for life. Eaeh generation has witnessed the unfortunate results in the lives of children whose parents were incapable of or unwilling to provide healthy psychological atmosphere within the home.

The parents have a tremendous role to play in the makin of child's personality. The loving and accepting parents provide a healthy medium for the child to grow into proper channels and exercise his potentials to the maximum so that the child becomes a producrive member of the society in which he is to live.

---

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Long (1941) observed that the reaction of parents towards the behaviours of children was an important factor of the situation in which that behaviour occurred, and also the age, sex and ordinal position of the child. Brown *et. al.* (1967) found that the family relationships characterized by warmth, mutual respect and affection were associated with the development of good psychological adjustments in children. Such warm family relationships probably provide the child with strong models of behaviour which, when imitated by the child, lead to positive reinforcement.

Walters and Stinnett (1971) concluded that parental acceptance, warmth and support were positively related to favourable motional, social and intellectual development of the children. On the other hand extreme strictness without acceptance, warmth and love tended to be negatively related to the child's positive self-concept, emotional and social development. Singh (1975) revealed that parental knowledge of the cognitive aspect of child development was related to the acceptance of their children. Parents were inclined to accept their children better when they know the cognitive skills of their children. Knowledge of child development had no relationship to acceptance of children.

The parents, especially the mothers do not accept the normal behaviours which are age appropriate for most of the children. Many of the mothers are ignorant about the effects of harsh punishment on the developing personality of their children. Extreme fears of parents may retard the cognitive and linguistic abilities of children. The knowledge of child development prepares mothers to be more accepting of their children.

The major objectives of the present study were (i) to identify differences in the parental acceptance of the rural and urban mothers, and (ii) to determine the demographic factors affecting the parental acceptance of the rural and urban mothers.

The following hypotheses were examined in the study :

1. There are no significant differences between less educated and more educated rural and urban mothers in the parental acceptance.
2. There are no significant differences between low income and high income rural and urdan mothers in the parental acceptance.
3. There are no significant differences between first born and later born rural and urban mothers in the parental acceptance.
4. There are no significant differences between rural and urban mothers belonging to small and large families in the parental acceptance.
5. There are no significant differences between rural and urban mothers belonging to joint and nuclear families in the parental acceptance.
6. There are no significant differences between employed and non-employed rural and urban mothers in the parental acceptance.

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METHODOLOGY

The available literature on the subject was studied, and a systematic procedure was designed for conducting the investigation, analysing the data and interpreting the results.

Selection of Respondents

The respondents in the present study were mothers who had at least one child between the age of two and a half to five years. The mothers of children enrolled in urban nurssery classes and rural balwadies of Ludhiana district comprised the total population in the study. From the final sample, there were forty-two children from the two urban schools and forty-three children form the three rural balwadies. Hence, the total sample comsisted of eighty-five mothers. The investigator contacted the mothors in their homes personally.

Instrument

To assess the degree of parental acceptance of the rural and urban mothers, an interview schedule was developed. A personal information sheet and an adapted form of Porter Parental Acceptance Scale was used. The personal information sheet consisted of the characteristics of the mother such as education. income of the family, ordinal position, number of children, type of family and employment of the mother.

The Porter Parental Acceptance Scale consisted of four sub-scales of ten items each. Each sub-scale was concerned with one of the major areas of the parental acceptance such as unconditional love, child's need for self-expression, recognition of the child's need for autonomy and unique make-up of the child. The form of items selected was one which described situations in which children expressed certain types of overt behaviours and verbalizations, exhibited uniqueness and characteristics different from those of his peers or the expectations, of his parents, and showed indications of becoming, or trying to become more independent.

RESULTS

The major findings of the study are as follows :

Testing of the Hypothesis

1. Hypothesis : There are no significant differences between less educated and more educated rural and urban mothers in the parental acceptance.

Table—1 indicates that there were no significant differences between rural and urban less educated mothers and between rural and urban more educated mothers in the acceptance of the preschool children. The null hypothesis, therefore, was not rejected. But there were significant differences between the less educated and more educated rural mothers and between the less educated and more educated urban mothers in the acceptance of preschool children. The null hypothesis, therefore, was rejected.

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Table 1

Mean Scores of Less Educated and More Educated Rural and Urban Mothers.

Groups	*Less Educated*				*More Educated*				
	N	X	S. D.	S. E.	N	X	S. D.	S. E.	t-calculated
Rural	19	111.66	67.00	15.37	24	139.33	39.56	8.07	12.86 **
Urban	15	110.67	45.41	11.73	27	136.30	48.54	9.33	6.68 **
t-calculated			.38 (N. S.)				1.61 (N. S.)		

N. S. Non-significant at .5 level ** Significant at .01 level.

The review of literature did support the null hypothesis. Porter (1965) found that educational level of the parents was significantly related to the degree to which parents accepted their behaviour. Burchinal (1958) found that more educated mothers accepted their children better than the less educated mothers.

2. Hypothesis. There are no significant differences between low income and high income rural and urban mothers in the parental acceptance.

Table II

Mean Scores of Low Income and High Income Rural and Urban Mothers

Groups	*Low Income*				*High Income*				
	N	X	S. D.	S. E.	N	X	S. D.	S. E.	t-calculated
Rural	17	113.91	56.74	13.77	26	135.65	47.36	9.29	10.15**
Urban	22	120.41	48.72	10.39	20	133.00	43.93	9.83	6.17**
t-calculated			2.85 **				1.31 (N. S.)		

N. S. Non-significant at .05 level, **Significant at .01 level

The results in terms of Table-II indicate that there were significant differences between the low income rural and urban mothers, between low income and high income

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rural mothers and between the low income and high income urban mothers in the acceptance of preschool children. The null hypothesis, therefore, was rejected. There were no significant differences between the high income rural and urban mothers. The null hypothesis, therefore, was not rejected.

Symonds (1949) indicated that low income parents rejected their children because of the economic burden imposed by the children, the stain of child birth and child care. Covington (1966) emphasized parental acceptance in relation to children's perception and indicated that higher socio-economic children perceived their parnets more accepting than the low socio-economic level children.

Hypothesis 3. There are no significant differences between first born and later born rural and urban mothers in the parental acceptance.

Table III

Mean Scores of First Born and Later Born Rural and Urban Mothers.

Groups	*First Born*				*Later Born*				
	N	X	S. D.	S. E.	N	X	S. D.	S. E.	t-calculated
Rural	18	138.89	42.04	9.92	25	118.50	64.06	12.81	9.18**
Urban	18	132.78	37.61	8.87	24	124.17	50.86	10.38	4.39**
t-calculated			2.92**				2.64**		

Table III indicates that there were significant differences between first born rural and urban mothers, between the later born rural and urban mothers, between first born and later born rural mothers and between first born and later born urban Mothers. The null hypothesis, therefore, was rejected.

An indirect support to present findings can be given by the study of Koch which indicated that first born children were "adult" oriented, serious, conscientious and fond of doing things for parents and showed identification with them while later born were "peer" oriented. It is assumed that first born adults would act as parent surrogate for younger siblings. Whereas Howkes *et al.* (1956) found that there was no significant effect of the ordinal position of the mother in the acceptance of their children.

Hypothesis 4. There are no significant differences between rural and urban mothers belonging to small and large families in the parental acceptance.

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Table IV

Mean Scores of Small and Large Families of Rural and Urban Mothers.

Groups	*Small Families*				*Large Families*				
	N	X	S. D.	S. E.	N	X	S. D.	S. E.	t-calculated
Rural	23	135.15	45.97	9.58	20	120.00	62.16	13.91	7.07**
Urban	26	125.38	48.01	9.41	16	129.00	50.87	12.72	1.68 (NS)
t-calculated			5.04 **				3.59 **		

N. S. Non-significant at .05 level ; **Significant at .01 level.

The results in terms of Table IV indicate that there were significant differences between the rural and urban mothers belonging to small families, between the rural and urban large family mothers and between the rural mothers belonging to small families and large families in the acceptance of their preschool children. The null hypothesis, therefore was rejected. Table also indicates that there were no significant differences between the urban mothers belonging to small families and large families in the acceptance of pre-school children. The null hypothesis, therefore, was not rejected.

The present findings concluded that the rural small family mothers accepted their preschool children more than the urban small family mothers which could be assumed that there were intimate relationships, individualization and democratic cooperation. On the other hand, urban large family mothers accepted their preschool children more because over the period of time, they become experienced to the child-rearing practices.

Hypothesis 5. There are no significant differences between rural and urban mothers belonging to joint and nuclear families in the parental acceptance.

On the basis of the data presented in Table-V the analysis of the hypothesis indicates that there were significant differences between the rural and urban mothers belonging to joint families and between the urban mothers.

Table V

Mean Scores of Rural and Urban Mothers Belonging to Joint and Nuclear Families.

Groups	*Joint Family*				*Nuclear Family*				
	N	X	S. D.	S. E.	N	X	S. D.	S. E.	t-calculated
Rural	30	126.00	72.32	13.20	13	127.88	42.57	11.79	0.72 NS
Urban	15	120.00	47.89	12.37	27	131.85	49.17	9.46	5.38 **
t-calculated			2.36 *					1.74 (N. S.)	

N. S. Non-Significant at .05 level *Significant at .05 level ; **Significant at .01 level.

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Belonging to joint families and Nuclear families in the acceptance of preschool children the null hypothesis, therefore, was rejected. But there were no significant differences between the rural and urban nuclear family mothers and between the rural mothers belonging to joint families and nuclear families in the acceptance of preschool children. The null hypothesis, therefore, was not rejected.

Hypothesis 6. There are no significant differences between employed and non-employed rural and urban mothers in the parental acceptance.

The analysis of the hypothesis as shown in Table VI indicates that there were significant differences between rural and urban employed mothers, between the employed and non-employed rural mothers and between the employed and non-employed urban mothers in the acceptance of preschool children. The null hypothesis, therefore, was rejected. Table also represents that there were no significant differences between the rural and urban non-employed mothers in the acceptance of their pre-school children. The null hypothesis, therefore, was not rejected.

Table VI

Mean Scores of Employed and Non-Employed Rural and Urban Mothers.

Groups	*Employed*				*Non-Employed*				
	N	X	S. D.	S. E.	N	X	S. D.	S. E.	t-calculated
Rural	13	140.00	34.12	9.45	30	117.50	62.09	11.33	8.49**
Urban	16	145.63	24.31	6.08	26	116.15	47.43	9.30	14.31**
t-calculated			2.82 **				0.69 (N. S.)		

Some relevance to the present findings can be drawn from the study conducted by Kohn (1965). He found that mothers values were directly related to their own occupational positions. The working class mothers differ significantly from middle class mothers on such standards of conduct as honesty, obedience, dependability and self-control. From the present study it was concluded that urban employed and mother shold favourable attitudes toward their jobs, therefore, scored high in measures of parental acceptance as compared to rural employed mothers.

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Power Motive in Relation to Sex and Value-Orientation

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Motivation plays a significant role in the behaviour of individual. There are various motives which determine human behaviour. Power motive is ofcourse, one of them. It plays a vital role in human behaviour. Numerous social theorists have used the concept of power. In some cases it plays in the analysis of social structure. In other cases, social power is a dimension to be considered in anaiysis of interpersonal relationship. In the latter sense, the power motive is considered that disposition directing behaviour toward satisfactions contingent upon the control of the means of influencing another persons. In the phenomenal sphere of the power motivated individual, considers himself the 'gate keeper' to certain descisions making of other persons. The importance of this kind of social motivation has been elaborated by Adler (1927) and Sullivan (1947) and has been brought to bear upon of some of the ecent researchers in group dyanamics.

Besides, value orientation is of great significance in the life of an individual. The various values also direct the behaviour of an individual. Among the various values social, economical and political values are of special interest in relation to power motive. A person highly interested in controlling the means of influence should value those ideas having to do with such control within the culture namely the political sense negates in sympathy for the person's feeling. The values are undoubtedly of great importance. Power motive is important for the various sphres of life and its activities.

Besides, power motive is of special use for organisers, managers, leaders, social workers. Above all power motivation is of vital importance for all human engineering in the various organiazations. The great importance of power motivation urged the researchers to undertake the present piece of research.

The area of power motiviation remain more or less neglected and this important area could not draw the attention of psychologists and educationists to conduct researches

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in this field for a long time and draw inference of vital importance for human engineering and psychodyanamics, however, a few psychologists conducted empirical researches on power motivation. Joseph Veroff (1957) conducted research on a sample of 68 graduate students (34 graduates in the control group and 34 graduates in the experimental group). Veroff tested the following hypotheses in his study.

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1. Power motive is positively related to political and economic and negatively to social values orientation.
2. Power motive is positively related to the intensity of interest in the job satisfaction of being boss and being leader.
3. Power motive is positively associated with the number of sibling in the family.
4. Power motive is positively associated with instructors rating of argumentalativeness and trying to convince others.

Recently McClelland and Burnham (1977) conducted research on public organisation. Here, the researchers conducted that the best managers of business are motivated less by a need for achivement than by need for power, a concern for influencing people. However, there is dearth of such experimental studies on power motive in India. It will not be out of point to state that Joseph Veroff's (1957) study on power motive is pioneer in the empirical researches should also be conducted our country so that their results could be utilized specially in the various spheres of human engineerring.

Hypotheses of Study

The following hypotheses (Ho) are formulated for testing :

Ho-1 Power motive is positively related to political and economic values in *Hindu* male and female graduates.

Ho-2 Power motive is negatively related to social values orientation in *Hindu* male and female graduates.

Ho-3 Power motive is positively related to political and economic value in *Muslim* male and female graduates.

Ho-4 Power motive is negatively related to social value orientation in *Muslim* male and female graduates.

Ho-5 There is no significant sex-difference in the power motive of *Hindu* in male and female graduates.

Ho-6 There is no significant sex-difference in the power motive of *Muslim* male and female graduates.

Variables of the Study

The problem was analysed in terms of independent and dependent variables for the sake of better experimental control and valid results of the study. Here power motive

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and values were measured as dependent variables. The independent variable grade were kept constant by collecting the data from the graduates students. However, it is assumed that all the males and female graduates students under reference have more or less the same age *i. e.*, 20 years or so and most of them from middle class families.

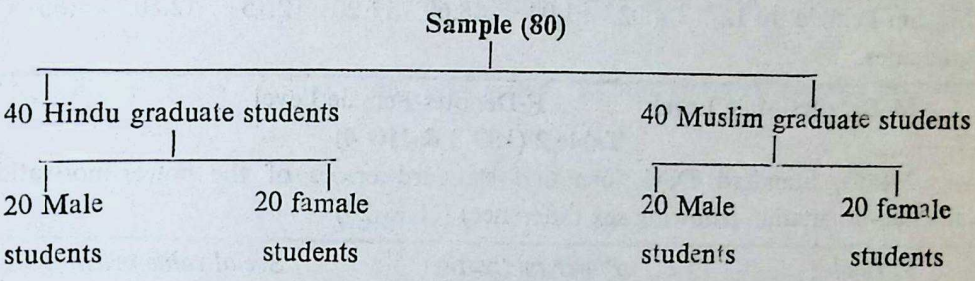
Experimental Design

The study was conducted on the students of both sexes belonging to postgraduate colleges of U. P. (Bareilly, Rampur and Moradabad). A sample of 80 graduat students was drawn by purposive sampling technique.

Sample design : Experimental group (40 Graduate students)

Control Group (40 Graduate students)

Total 80 students.



Research Tool : Thematic Apperception Test.

(Joseph Veroff (1957) and Burnham both emphasised the use of T. A. T.)

Procedure. T. A. T. was held individually with the subject and experimenter only present in the experimental room. As a first step in the test procedure the subject was told the general nature and purpose of the test before starting the test. Subject was also made familiar with the test situations to make him or her feel at ease during the test and also to reduce level of fear due to test situations.

Result and Discussion

Table No. 1 presents the means, standard deviations and standard errors of the political and economical values of the four different socical groups. As a matter of fact observations of Table No. 1 clearly indicate that Gr. I Male, Gr. II Male, on one hand significantly higher than Gr. III Female & Gr. IV female specially in power Motives vs. Political value while on the other hand the same groups also significantly differ in power motives vs. Economical value *i. e.*, Girls or Female graduates than males.

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Table 1 (for HO 1 & HO 2)

Means, Standard deviations and standard errors of the power motivation, Political and economical value scores of the four social groups (N-20).

Variables	*Power motivation*			*PoliticalValue*			*Economical value*		
Social Groups	*Mean*	*S. D.*	*S. E.*	*Mean*	*S. D.*	*S. E.*	*Mean*	*S. D*	*S. E.*
Hindu Male graduates. M	18.10	7.24	1.86	80.02	10.60	2.72	10.50	1.52	.39
Muslim Male gradautes	28.34	10.20	2.62	70.24	7.25	1.88	8.30	1.13	.28
Hindu female graduates F	15.20	7.10	1.55	78.10	8.24	2.12	10.40	2.20	.53
Muslim Female graduates.	10.12	4.02	1.04	88.60	11.20	2.15	12.80	1.66	.40

M-Denotes-Male Level F-Denotes-Female Level

Table 2 (HO 3 & HO 4)

Means, Standard Deviations and standard errors of the power motivation and social value-orientation (showing sex difference) (N = 20)

Variables	*Power motivation*			*Social value orientation*		
Social Groups	*Mean*	*S. D.*	*S. E.*	*Mean*	*S. D.*	*S. E.*
Hindu male graduates	18.10	2.32	.32	10.40	2.90	1.42
Muslim male graduates	27.32	10.18	2.60	78.02	14.70	2.38
Hindu Female graduates	10.14	4.02	1.05	89.70	10.35	1.62
Muslim Female graduates	10.00	2.14	.30	86.50	10.20	2.15

Table 3 (HO 5 & HO 6)

Mean and standard deviations—Showing significant differences in relation to power motivation.

Variables (*Social Groups*)	*N*	*Mean*	*S. D.*	*t.*	*P. Value*
Hindu male graduates	20	92.64	8.68		
Hindu Female Graduates	20	100.30	80.84	5.9	.01
Muslim Male Graduates	20	47.50	4.62	7.31	
Muslim Female Graduates	20	44.00	5.32		

Table No. 2—also presents the sex differences (according to Ho 3 & Ho4) we find that Hindu males power motive is negatively related to social value orientation on one hand, while on the other hand Muslim Males, Muslim females and Hindu females power motive is positively related to social value orientations.

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Table No. 3—(HO-5 & HO-6) Presents the Mean. S. D. t-value and p-value. Actually it was hypothesisted (HO-5 & HO-6) that there is no significant difference in both the sexes of different communities (Hindus & Muslims), but the results are against the Ho-5 & Ho-6 i. e. the mean score of the Hindu females (100.30) is greater than the mean score of the Hindu Males (92, 64). The *t*-ratio of 5.9 (Table-3) is significant beyond. ·01 level. From this it can be concluded that Hindu female graduates held strong attitude toward power motivation in general as compared to the Hindu Male graduates.

The mean score (44.00) of the Muslim female graduates is lesser than the mean score (47. 50) of the Muslim male graduates. The difference is in the favour of the Muslim males and is significant beyond .01 level (Table-3) This comparision shows that Muslim female graduates held most ineffective intention towards power motivation than their Muslim male graduates counter part.

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Performance in Relation to Ego-Strength And Alienation of Blue-Collar Industrial Workers

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The purpose of the present investigation is to findout the influence of ego-strength and alienation on performance of blue-collar industrial workers. The sample consists of 150 workers of Diesel Locomotive Works, Varanasi (U. P.). The level of performance was assessed on the basis of production records for the last one year (1977-78). Alienation Scale has been used to determine the level of alienation (Dutta and Kureshi, 1975). Ego-strength Scale developed by Q. Hasan has been used to determine ego-strength. The 2x2 factorial design has been employed in the present investigation. The results are analysed in terms of mean, standard deviation, critical-ratio, analysis of variance, and correlation. The results indicate that the level of performance of high ego-strength group is significantly higher in comparison to low ego-strength group of workers. The level of performance of less alienated workers is also better in comparison to high alienated workers. A significant negative correlation exists between alienation and performance. Ego-strength and performance are positively correlated. But the partial correlation shows that performance is not significantly affected by ego-strength and alienation rather the level of performance itself affects the ego-strength and alienation and its relationship.

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INTRODUCTION

The satisfaction and performance are known to be influenced by several factors. A great emphasis is laid on identifying the environmental factors and or conditions which are thought to influence the satisfaction and performance of workers. However, there is a growing realization that personality characteristics of industrial workers also play an important role in their job performance. For Ali (1975), ego-strength is also an important factor in determining the capactiy of an individual to perceive a challenging situation realistically and to execute the response effectively. A number of industrial psychologists have emphasized worker's alienation as an influencing factor on job satisfaction and performance. (Ahmad and Pestonjee, 1978 ; Pestonjee, Singh and Singh, 1978 ; Singh and Singh, 1979; Pestonjee and Singh, 1979)

Ego-strength can be defined as the total psychic energy at the disposal of the individual enabling him to enjoy his strivings to master the environment. It is not the amount of troubles, conflicts, and crises that a worker encounters but the manner and confidence with which he encounters them. A worker scoring high on ego-strength pattern is characterized by larger delayed rewards or goals for which he must either await or work, with high achievement, motivation and less uncontrollnd impulsivity (Hasan, 1976). To Pedersan (1965) ego-strength is a person's ability to deal with reality. He observed that subjects with high-strength will have greater unconscious concern for achievement than subjects with low ego-strength. This observation is consistant with many other previous researches on the relationship between ego-strength and a need for achievement. Mc Clelland, Atkinson, Clark, and Lowell (1953) also found a high relationship between need for achievement and low personality. Need for achievement is widely considered to exist on an unconscious level. It was reported by Bidwell (1969) that ego-strength is positively related to appropriate vocational goal experiences, accurate self-knowledge in the areas of aptitude, interests and progress toward work.

Etzioni (1960) defines alienation as the social situation which is beyond the control of a person and hence he is unresponsive to his basic needs. Kanungo (1977) has defined work alienation as a generalized cognitive (or belief) state of psychological seperation from work, in so far as work is perceived to lack the potentiality for satisfying one's salient needs and expectations. Alienation, as a matter of fact, is a mode of experience in which a worker experiences himself as an alien. He may be estranged from himself and work. A highly alienated worker will restrict his own industrial output Also, worker's participation in management leads to increase in job satisfaction and reduction in alienation (Obradevic, 1970). It was found that vocational interest of young people, knowledge of the work to be done, and impediments of a free decision for a specific vocation were not significantly related to vocation alienation (Ernste. 1968). It was suggested by Miller (1967) that work alienation is associated with the type of organizational structures.

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In the present investigation the authors attempt to find out the effect of ego-strength and alienation on performance of blue-collar workers. The attempt is made to ascertain whether different levels of ego-strength and alienation have any effect on their job performance.

HYPOTHESES

The following two specific hypotheses were formulated in the present investigation.

1. Performance scores will be higher in high ego-strength group in comparison to low ego-strength group.
2. Performance scores will be higher in low alienation group in comparison to high alienation group.

METHODOLOGY

The present study was conducted at Diesel Locomotive Works, Varanasi (U. P.) India. The sample consists of 150 blue-collar workers. Performance was measured on the basis of production records for the last one year (1977-78). *Ego-Strength Scale* developed by Hasan (1976) has been used to assess the ego-strength of workers. It consists of 32 items in the form of simple sentences. *A-Scale* or *Alienation Scale* has been used to measure alienation. The scale is structured on the basis of five factors of alienation, namely, despair disillusionment, unstructured universe, narcissism and psychological vaccum. There are 21 items in the scale with four response alternatives, viz. always, mostly, seldom, and never (Dutta and Kureshi, (1976).

In the present study there are two independent variables namely, ego-strength, and alienation. Job performance is the dependent variable. Ego-strength and alienation both are given two treatments, *i. e*, high and low A 2×2 factorial design is used employing analysis of variance.

RESULTS

The obtained results of the present investigation are recorded in the following tables (table I to III).

Table-I records the mean, standard deviation and critical ratios of job performance scores of high ego-strength-low ego-strength and high alienation-low alienation groups.

Table I

Significance of difference : Job performance Score of high Ego-strength-low ego-strength and high alienation-low alienation groups.

	Mean	*S. D.*	*C. R.*	*P*
High Ego-Strength	96.68	9.70	18.55	.01
Low Ego-Strength	36.20	26.40		
High alienation	50.90	8.70	6.67	.01
Low alienation	77.90	33.00		

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The results indicate that high ego-strength group has scored significantly better as compared to low ego-strength group. Further low alienation group has also scored significantly higher in comparison to high alienation group.

Table-II records the effect of ego-strength and alienation on job performance scores employing analysis of variance.

Table II

Effect of Ego-strength and alienation on job performance. Analysis of variance

	df.	*Sum of squares*	*Mean Square*	*F*	*P*
A : Ego-strength	1	1121.87	1121.87	4.78	.05
B : Alienation	1	291.05	291.05	1.21	NS
A x B Ego-strength x alienation	1	39.60	39.60	.16	NS
Error Within Treatment	146	34203.42	234.27		

F-ratio further confirms that two levels of ego-strength *i. e.* high and low significantly discriminates the level of performance. But alienation is not significantly affecting the performance level. The interaction effect of ego-strength and alienation also do not impart significant effect on performance.

Table-III records the coefficient of correlation among ego-strength, alienation and job performance scores. Zero-order correlation and partial correlations have been computed.

Table-III

Correlation coefficients between ego-strength, alienation and job performance.

	N	*Zero order correlation*	*P*	*Partial correlation*	*P*
Ego-Strength VS Performance	150	.65	.01	.63 (By controlling alienation)	.01
Alienation VS Performance	150	-.732	.01	-.708 (By controlling ego-strength)	.01
Ego-strength VS Alienation	150	-0.34	.01	.27 (By controlling performance)	.01

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The zero order correlation between ego-strength and performance is .65 which is significant at ·01 level. Further partial correlation was computed by controlling the effect of alienation which slightly reduced the coefficient of correlation. The coefficient of correlation between alienation and performance was −·732 which is significant at .01 level. By controlling the effect of ego-strength, the partial correlation is also slightly reduced. The coefficient of correlation between ego-strength and alienation is −·34 which is significant at .01 level. When the effect of performance was controlled the relationship between the ego-strength and alienation was reversed.

DISCUSSION

Results of the present investigation are consistant with some of the earlier findings (Etzione, 1968 ; Pederson, 1965 ; Mc Clelland, Atkinson, Clark, and Lowell, 1953 ; Singh, 1978 ; Pestonjee, Singh, and Singh, 1979 ; Singh and Srivastava, 1979).

From table-I we observe that mean and standard deviation of performance scores is comparatively higher for high ego-strength group as compared to low ego-strength group. Mean and standard deviation for high ego-strength group are 96.68 and 9.70 the corresponding figures for low ego-strength group are 36.20 and 26.40. The results indicate a statistically significant difference in job performance scores under the two ego-strength groups (C. R.=18.55 ; p. <·01). It proves that high ego-strength group has higher level of job performance. Workers of this group are oriented towards future and plan for everything carefully. They are having high achievement motivation, and high aspirations. They readily accept the realities of world. These characteristics make the workers fit in all areas of career. Thus they adjust with all aspects of working situation, which may increase their performance, Low ego-strength group, on the other hand, is very pessimistic. They feel great difficulties in daily life situations. All conditions are unsatisfactory to them, and they do not feel at case at any time. This hampers their job performance. In this way performance. In this way performance of high ego-strength group is higher in comparison to low ego-strength group.

We have also tried to determine the significance of difference between the job performance scores of the high alienation-low alienation groups (Table I). Mean and standard deviation of the low alienation group are 77·90 and 33.0 ; for the high alienation group the respective values are 50.90 and 8.70. The critical-ratio value is found to be 6 67 ($p < .01$). From our results it is established that workers who feel less alienated tend to have higher level of job performance and *vice-versa*. Low alienation group maintains socialties with other persons. Workers of this group realize their own importance, society and also of their performance on job. The workers of high alienation group are socially estranged as well as from themselves and the work. Workers feel themselves as powerless, pessimistic and in isolation. This all hampers their job performance which gradually becomes low.

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Further, we have also applied analysis of variance to find out the effect of ego-strength and alienation and their interaction on job performance (Table-II). Job performance was found to be significantly affected by high and low levels of ego-strength ($F=4.78$, $p < .05$). But high and low levels of alienation does not significantly affect job performance ($F=1.24$). The interaction effect of ego-strength and alienation on job performance was also not found to be significant. It indicates that the difference between the job performance scores of high and low levels of ego-strengths for the first level of alienation (high) is not significantly different from the difference between the job performance scores of high and low ego-strengths for the second level of alienation (low).

The coefficient of correlation between ego-strength, alienation and job permance has been computed (Table-III). The correlation between ego-strength and performance is 0.65 which is statistically significant at ·01 level. This indicates that ego-strength and performance are positively correlated, when ego-strength increases, performance also increases and *vice-versa*. Table-III also indicates that by using partial correlation techniques to control the effect of alienation the relationship between ego-strength and performance was reduced and the variance accounted for by the alienation measure was minimal.

The correlation between alienation and job performance is -.732 which is significant at .01 level. This indicates that when alienation increases, job performance decreases and *vice-versa*. Controlling for the effect of ego-strength the relationship between alienation and performance was reduced. This clearly shows that ego-strength is the cause of high relationship.

The correlation between ego-strength and alienation was also computed. The obtained correlation coefficient is -0.347 which is significant at .01 level. However, as Table III indicates when controlling for performance this relationship was reversed. The obtained partial correlation was .27 which is significant at .01 level. It indicates that when the effect of performance was controlled, the nature of relationship between ego-strength and alienation was significantly changed It makes clear that performance is not significantly affected by ego-strength and alienation but the level of performance itself affects the ego-strength and alienation and its relationship.

CONCLUSIONS

The following conclusions can be drawn from the present investigation.

1. Ego-strength has been found to be closely related with job performance of blue-collar worker. The level of job performance is higher for high ego-strength group. Thus ego-strength and performance are positively related.
3. Alienation has significant relationship with performance. Low alienation causes high performance and high alienation results in low performance.
3. The findings very clearly indicate that high ego-strength and low alienation are closely associated with high performance.

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A Comparative Study of the Effect of Different Types of Feedbacks in Micro Teaching

S. K. Sharma and A. K. Gupta
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The study was aimed to see the effect of three types of feedbacks namely, Investigator, Peer-Supervisor and Self feedback in Microteaching. Further the effect of feedback was seen on Sex, Age and teaching subjects of the student teachers, to improve the teaching competency. Baroda General Teaching Competency Scale (BGTC) was used to asses the teaching Competency of student teachers. The results shows a significant difference of the Investigator's feedback on Peer and Self feedback while there was a non significant difference between the effect of Peer and Self feedback. Age and Teaching Subjects as variables influenced the effectiveness of feedbacks while there was not significant difference of the feedback on sex as a variable.

INTRODUCTION

Feedback is a process that occurs when data regarding the perforcementce of a system is feedback into the system to permit correction and adjustment of its performance.

The process of giving feedback to trainee in Micro-teaching is an important aspect. Mc Alcese (1973) regards the provision of feedback as "a vitally inportant element in Micro-teaching." Morrisen and Mc Intyre (1975) report that one of the advantages claimed for Micro-teaching is that "provision is made for much fuller and more objective feedback than in other teacher training procedre."

There may be various types of feedback in Micro-teaching, as : (1) Feedback by Superviser (2) Feedback by Peers (3) Tape Recordor (4) Feedback by Vidie Taperecorder (5) Self feedback (6) Investigater's feedback (7) Pupil's Feedback (8) Telephone Feedback.

There are very few studies regarding the effect of feedback in micro-teaching. Borg (1970) shows the equally effectiveness of the supervisery feedback and. Audiotape feedback

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Pangotra (1972) indicate that the feedback given by the College supervisor is more effective for producing indirect teacher behaviour than the effect of the feedback given by Peers and Pupils. Sharma et al (1976) shows that Feedback given by Peers is equally effective as that given by college supervisor. Lewis, et al (1973) reported that the student teacher expressed strong preference for having self analysis supplimented. Sharma, (1978) found that the effectiveness of Investigators feedback was more than the feedback given by Tape-recorder and Peer supervisor.

Seeing the effectiveness and importance of Micro-teaching technique, there is a need to study the effect of different types of feedbacks. The present study was an attempt towards this direction.

OBJECTIVES OF THE STUDY

The Objetives of the study were as follows :

(1) To study the effect of feedback in Micro-teaching technique.

(2) To compare the effect of different feedbacks (Self feedback, Peer's feedback and Investigators feedback).

(3) To study the effect of feedback on Sex, Age and Teaching subjects of the student teachers.

TOOLS USED

Baroda General Competency Scale (BGTC) was used to asses the teaching competency. Evaluation Performas by Passi, etal (1976) were used to give feedback by Peer supervisor and supervisor.

SAMPLE

A sample of 42 student teachers out of 120 of J. V. Jain College Saharanpur (Meerut Univ.) was taken for the study. In pursurance of the objectives of the study, the whole group was divided into three parallel groups (A, B & C), Keeping in view that each group consists of equal number of Male and female student teachers and a proportionate number of Science and Arts Students.

PROCEDURE

Before conducting the actual experiment, the whole group of 42 student teachers was oriented in the concept and use of Micro-teaching in teacher education. Two Peer supervisers were specially trained to supervise the lesson. The design of the experiment was Pre and Post-test design. In actual experiment, Group A was feedbacked by Self, Group B was feedbacked by Peer supervisor and group C was feedbacked by investigator.

DATA ANALYSIS

Analyses of variance was applied to Post-test scores. To find out the effect of different type of feedback F-test was followed by t-test.

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Table A

Showing Mean, S. D. Number (N) and t-Ratio of Pre and Post test Scores of Groups A, B & C

Groups	N		Mean		S. D.		*t*	Level of significance
	Pre test	Post test	Pre test	Post test	Pre test	Post test		
Group A (Self Feedback)	14	14	14.5	22.6	3.52	6.29	4.26	.01
Group B (Peer Supervisor)	14	14	15.8	23.7	4.74	6.5	3.66	.01
Group C (Investigater)	14	14	14.6	31.8	3.5	5.42	10.1	.01

Table B

Showing Significance of differences between the Mean Scores of students teachers after Feedback.

Students teacher	N	Mean	S. D.	t value	Level of significance
SEX					
Male	21	26.50	6.47	.99	—
Female	21	28.87	8.90		
Age Group					
19-23	19	23.8	6.5	4.96	.01
Above 23	23	31.4	7.2		
Teaching Subjects					
Science	21	31.7	7.5	5.6	.01
Arts	21	20.4	5.3		

RESULTS AND CONCLUSIONS

1. Effect of Feedback on teaching Competency

The significant values of *t* (4.26, 3.66 and 10.1) shows that all three feedbacks have improved the teaching competency of student teachers.

2. Effect of different types of Feedbacks

The technique of analysis of Co-variance was applied to find out the comparative effect of three types of feedbacks. The *t* value of 3.01 and 2.17 for 26 *df* was significant

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at .01 level of confidence, which shows that the feedback given by investigator is more effective than the feedback given by Peer-supervisor and self feedback. Further the *t*-value of 1.3 for 28 *df* indicates that there was no significant difference in the feedback given by Peer supervisor and self feedback.

3. Effect of feedback on Sex

The Post test Scores were anlysed in respect of Sex variable and it was found that the *t*-value of 0.99 was not significant even at 0.05 level of confidence. This shows that sex as a variable does not influence the gain in the teaching competency of student teachers feedbacked through different sources.

4. Effect of feedback on Age

The *t*-value of 4.96 was found to be significant at .01 level of confidence in favour of high age group. Thus it may be concluded that effect of feedback is more on higher age group to improve the teaching competency.

5. Effect of Feedback on Teaching Subjects

The Post-test scores were further analysed in respect of student teachers teaching Science and Arts subjects. The *t* value of 5.6 was found to be significant in favour of Science teachers. This shows that the effect of feedback can improve the teaching competecy of Science teachers more than the Arts teachers.

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Level of Adjustments in the Santal Under-graduate Students

Lal Bhadur Singh*
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A matched group of 200 Santal and 100 non-Santal undergraduate students were given a test of adjustment. The purpose of the study was to examine the difference, if any, in the level of adjustment of the Santal and non-Santal students. It was found that the Santal students were inferior in their home, health and educational adjustment but superior in their social adjustment to the non-Santal students. However, the difference in the emotional adjustment level of both Santal and non-Santal students has been found to be insignificant.

INTRODUCTION

The proposed investigation is an attempt to understand the adjustment of the Santal (Tribal) undergraduate students of Santal Parganas, Bihar, where the studies (Kumari 1977 ; Kumari, 1979) have been very meagre throwing partial light on their adjustment in different areas. Investigations (Brar, 1973 ; Singh, 1975), carried out to see the level of adjustment to non-tribals, have acute problems in adjustment. This leads to the expectation that the Santals, being tribals, would be significantly less adjusted. The expectation gets support from a couple of studies by Kumari (1977) and Kumari (1979). In her study Kumari (1977) has shown that in comparison to the non-Santals, the Santal students are educationally less adjusted. Similarly, in an another study of Kumari (1979) Santal students have been reported to have significantly more adjustment problems in the areas of "home" and "education". Further, indirect support to the expectation may be borrowed from the two different studies of Singh (1979, 1980) in which it has been recorded that the Santal students have significantly lower level of intelligence (Singh, 1979) and higher level of anxiety (1980) than in their non-Santal counterparts. On the other hand, Vankata Rami Reddy (1975) has reported that the more intelligent students are better adjusted than the lesser ones, and in the studies of Prakash and Siddique (1976) and Sharma (1970) it has been confirmed that greater the anxiety lesser the adjustment.

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Therefore, it was hypothesized that the Santal students would be significantly less adjusted in different areas of adjustment (home, health, social, emotional and educational) as compared to the non-Santal students.

METHOD

Sample. 200 Santal and 100 non-Santal students studying in the college of Santal pargans district of Bihar, constituted the sample of the present investigation. The two groups were comparable in terms of their age, sex, education, residence and socio-economic conditions.

Test Used : Students' adjustment in different areas were identified with the help of "Adjustment Inventory For College Students" prepared and developed by Sinha and Singh (1973) in Hindi. The inventory had 102 items with forced-choice response alternatives of 'Yes' and 'No'. For any answer indicative of adjustment, zero was given otherwise a score of 1 (one) was awarded. Low scores on the scales indicated satisfactory adjustment, except on the social adjustment scale where low scores were indicative of aggressive behaviour. The test-retest reliability coefficients for the different sub-scales were found to be .85 (Home) .82 (Health), .95 (Social), .94 (Emotional) and .96 (Educational) respectively. Similarly, split-half reliability, coefficients were reported to be .87 (Home), .33 (Health), .69 (Social), .95 (Emotional) and .97 (Education) respectively. The test-retest and split-half reliability coefficients for the total test were determined to be .94 and .93 respectively.

For the purpose of effective control and apt supervision, the scale was administered in small groups of 5 to 15 subjects after establishing a friendly relationship with them. Approximately one class hour or have an hour was provided to the subjects for the completion of the test materials incorporated in the scale. The test had already been accompained by simple and comprehensive instruction yet the subjects were briefed before taking the test.

RESULTS AND DISCUSSION

The present investigation, as stated above, was undertaken to examine the hypothesis that the Santal students, as compared to the non-Santal students would be significantly less adjusted in different areas of adjustment. Five specific hypotheses were framed for verification. For statistical comparison *t*-test was used. The results obtained and discussion are given below.

Home Adjustment

It was hypothesized that home adjustment of the Santal students would be significantly poorer than that of the non-Santal students. The distribution of the mean home adjustment scores of the Santal and non-Santal students is presented in Table-1.

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Table 1

Score of Home Adjustment

Sample	*N*	*Mean*	*SD*	*t*	*P-value*
Santal	200	6.02	3.46	5.10	<.01
Non-Santal	100	4.07	2.94		

Comparing the scores, it was found that the mean home adjustment score (6.02–3.46) of the Santal students was significantly higher as compared to the mean home adjustment (4.07–2.94) of the non-Santal students. The difference of 1.85 between the two means was not only in favour of the Santal students but was also found to be significant beyond .01 level of confidence. Thus it was concluded that the Santal students as compared to the non-Santal students are significantly less adjusted in home areas of adjustment.

Despite the transmission of significant social, political, economic, religious and technological changes, the Santal believe predominantly in the joint family system. However, it may be commonly seen that the joint family traditionally conceived as a means of social and emotional security is diminishing in the eyes of young educated santals. It is pertinent enough to note here that the advancement of education, industrialization and urbanisation mingled with western ideas, the relevance of joint family has not only been ripped by family feuds and property divisions but has also ceased to be an economically productive unit. Specially in the urban setting it is being questioned by the young educated and forward looking Santals. This impeds the family togetherness and the parental sting in the family affairs, and generates conflict of aspirations and wishes between Santal educated youths and their orthodox parents. That is why the Santal students in comparison to the non-Santal students are inferior in their home adjustment. Moreover, the growing individuality in the college going Santals ostered by modernization, also tends to retard their home adjustment.

Health Adjustment

It was expected that the Santal students would be significantly less adjusted in health as compared to the non-Santal students. Table-2 presents the summary of results.

Table 2

Scores of Health Adjustment

Sample	*N*	*Mean*	*SD*	*t*	*P-value*
Santal	200	4.49	3.65	1.99	<.05
Non-Santal	100	3.77	2.55		

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From persual of Table 2, it is apparent that the mean health adjustment score (4.49±3.65) of Santal students is higher as compared to the mean health adjustment score (3.77±2.55) of the non-Santal students. The difference between the two means is statistically significant $t=1.99$) at .05 level of confidence and is in favour of Santal students. Thus it was concluded that the Santals, as compared to the non-Santal students, are significantly inferior in their health adjustment.

It may be seen that inspite of considerable socio-technological changes, the Santals have numerous taboos and superstitions which guide their life style to a great extent and later on keep them less adjusted. For example, the Santals take it for granted that various deities and Spirits are responsible for the welfare of the men and his community (Parsad, 1972). Similarly, according to Kochar (1966a), the Santals believe that they are totally surrounded by the *Bongas* or *Spirits* The *Bongas* or *Spirits* must be appeased or kept satisfied otherwise they may cause harm. Religiously, the Santals believe that '*Thakur Jiu*', the supreme being, is not only the creator of heaven, earth and man but he is also the keeper and supporter of life. He provides all that a man needs and allots each man his span of life. Apart from the above their belief in witchcraft, considered somehow responsible for health, is still very strong, sometimes leading even to death (Rout, 1966-67). Vir tually, due to such fatalistic and orthodox beliefs and attitudes wedded with significant taboos and superstitions, the Santals are less careful to their health and depend more upon God and other supernatural beings. Consequently, it generates the problems of health adjustment in the Santal students.

Social Adjustment

It was presumed that the Santal students would be significantly less adjusted socially as compared to the non-Santal students. A comparison of the mean social adjustment scores of the Santal and non-Santal students is given in Table 3 below.

Table 3

Scores of Social Adjustment

Sample	*N*	*Mean*	*SD*	*t*	*p-value*
Santal	200	8.92	2.91	5.14	<.01
Non-Santal	100	6.74	3.72		

A look at Table-3 clearly demonstrates that the mean social adjustment scores (8.92 ±2.91) of the Santal students is significantly higher than the mean social apjustment score (6.74±3.72) of the non-Santal students. The differences of 2.18 between the two means is in favour of Santal students and is found to be significant (t=5.14) beyond .01 level of confidence. Thus the present finding indicates that in comparison to the non-Santal students, the Santal students are superior in social adjustment.

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In explaining the results, it is interesting to note that though illiterate, rustic, and semi-civilized, the community life of the Santals is well organized and may be called a model of corporate living. It is based on the concept and practice of equality, fraternity and social justice, permeated through the ideals of socialism and democracy (Sinha, 1972). The spirit of brotherhood, responsible for the survival and integrity of the community, is highly valued by the Santals. They always like to abide by the principle of togetherness developed through commonality of interest. Kochar (1966) has rightly remarked that Santals have very high level of social cohesion and socially identity. It will not be irrelevant to note here that the Santals, in general, are gentle and have firm faith in pacifism and social liberty. If not disturbed or attached from without they hardly come in conflict with others. All these significant charcteristics of the Santal community life envisage the reasons of better social adjustment in Santal students than the non-Santal ones.

Emotional Adjustment

It was hypothesized that, the Santal students would be emotionally less adjusted as compared to the non-Santal students. Table-4 presents the comparison of the Santal and non-Santal students with regard to their emotional adjustment scores.

Table 4

Scores of Emotional Adjustment

Sample	*N*	*Mean*	*SD*	*t*	*P-value*
Santal	200	12.94	5.12	.73	NS
Non-Santal	100	12.46	4.97		

The comparison of the mean emotional adjustment scores of the Santal (12.9±45.12) and non-Santal (12.46±4.97) students reveal no significant difference ($t = .73$) between them with regard to their emotional adjustment. Thus the hypothesis of significant difference in the emotional adjustment of Santal and non-Santal students was not substantiated.

Educational Adjustment

Lastly, it was contended that the educational adjustment of the Santal students would be significantly inferior to the non-Santal students. The results obtained are presented in Table-5.

Table 5

Scores of Educational Adjustment

Sample	*N*	*Mean*	*SD*	*t*	*P-value*
Santal	200	1.24	4.27	4.65	<.01
Non-Santal	100	6.21	3.18		

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Table 5 reveals that the mean educational adjustment score (8.24 ± 4.27) of the Santal students is significantly higher than the mean educational adjustment score (6.21 ± 3.18) of the non-Santal students. The difference between the two means (2.03) is not only statistically significant ($t = 4.65$) beyond .01 level of confidence but is also in favour of the Santal students. Thus, it was concluded that the Santals, in comparison to the non-Santal students, are significantly inferior in their educational adjustment. The results are in complete accord with the findings of Kumari (1977) and Kumari (1979) in which Santal students have been reported to be significantly less educationally adjusted as compard to the non-Santal students.

The reason of inferior educational adjustment in the study of Kumari (1979) wherein the Santal students have been attributed to have significantly more intense and frequent academic problems as compared to the non-Santal students. Further, in an earlier study Singh (1979) it was concluded that due to several socio-psychological problem the Santals are inferior in their educational achievement. Conclusively, these intense and frequent academic problems or different problems in their academic spheres are likely to interfere significantly in the educational adjustment of the Santal students. It is, therefore, not unnatural that due to more frequent and intense academic problems the Santal students are inferior in their educational adjustment as compared to the non-Santal students.

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Attitudes And Beliefs of Dogmatics: A Review of Researches

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According to Rokeach (1960) dogmatism is synonymous with generalized authoritarianism. He claims that dogmatism refers to structural characteristics of belief-disbelief system and that the scale developed by him for measuring open-closed mindedness has no ideological content. However, if dogmatism is regarded as personality characteristic and personality, as most its definitions suggest, is an organization of all the dimensions along which individuals differ (Argyris, (1957), it is improbable that dogmatism would not be related to such important components of personality as value-orientations. Even if value-orientations are regarded as the surface expressions of deep-rooted personality characteristics, they are not to be considered as superficial figments attached to personality.

From the premise that personality is not a mere collection of certain traits but an organisation in which there is interdependence of the parts, it follows that the different ingredients as personality would not be necessarily incompatible with each other. Even Rokeach (1960) who claimed that the concept of dogmatism refers to structural rather than thematic characteristic had to conced that certain beliefs are more compatible with closed rather than with open organisation of belief-disbelief system. In the context of the above comments let us review, in what follows, the empirical studies concerning the relationship between dogmatism and values, attitudes and beliefs.

The controversy regarding the nature of relationship between authoritarianism as a syndrome of personality and ideological perferences was sparked off as early as the publication of "*Authoritarian Personality*" by Adorno and his associates (1950). The

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F—Scale was developed by Adorno and his coilaborators for measuring authoritarianism. If authoritarianism is a personality syndrome then the scale developed for its measurement should help us to identify all kinds of authoritarians, and not merely those authoritarians who believe in a particular political ideology.

According to Christie (1954), Shils (1954) and Rokeach (1960) the F-Scale could not fulfil the above requirement as it comprises items which, due to their ideological overtones, would be rejected by non-Fascist authoritarians. It may be pointed out that authoritarianism is not merely confined to those who believe in fascist ideology. Therefore, some other suitable scale has to be found which may help us to locate authoritarians of other political orientations.

Christie (1954) has provided empirical evidence to show that the F-Scale fails to identify non-Fascist authoritarians. He concentrated on nine subjects of the California study who had identified themselves as Communists and on thirty five California Labour School students who had been suspected to have affiliation with the Communist party In the absence of the availability of the F-Scale scores of Communists and Labour School students, Christie looked for their scores on the Ethnocentrism Scale. On this scale all the subjects were found to score lower than the average score of the socio-economic groups to which they belonged. In the light of the fact that the correlation between the Ethnocentrism Scale and the F-Scale was as high as .75, Christie readily assumed that the nine self-iedentified Communists and the students of the Labour School would score low on the F-Scale. Christie argued that the Most probable reason for expecting the Communists and the suspected Communists to score low on the F-Scale is that these subjects were likely to reject some of the items of the F-Scale not because they were not authoritarians but because they disagreed with those item which were more consistent with the Rightist, i. e., Fascist ideology then with the leftist, i. e., Communist ideology.

It was Shils (1954) who was able to pinpoint the source of the weakness in the F-scale to which Christie had hinted. Shils pointed out that the authors of the F-scale had unwittingly assumed the unilinearity of social and political attitudes. He asserted that all these attitudes could be arranged along a continum one pole of which may be represented by democracy and the other by fascism. He pointed out that had Adorno and his Collaborators (1950) realized that both the Rightist and Leftist ideologies could be arranged along the dimension of democratic anti-democratic tendencies. They would not have committed the fallacy of equating only one brand of ideology with democratic anti-democratic dimension of attitudes.

Gregory (1957) like Christie also found that F-Scale was insensitive for those persons who were liberal in beliefs and attitudes. He was faced with the question whether 'religious beliefs of an individual have any relationship with his political, economic, or social behaviour' ? To answer this question Gregory (1957) constructed a scale which helped to measure degree of religious orthodoxy and was found to correlate with University of California Public Opinion Scale (1950). The newly constructed scale, University of California

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Public Opinion Scale and the Chave's Attitude towards Chureh Scale (1939) were administered on a group of 596 subjects. Gre ory, in accordance with the findings reported in 'The Authoritarian Personality,' expected a significant positive correlation between the scores on the new scale, and University of California Public Opinion Scale. A correlation of 53 between F-Scale and religious belief scale showed that authoritarians tend to be religiously orthodox. Further, item analysis and detailed inspection of responses given by high and low scorers on the F-Scale to item comprising the new scale showed a distinct ter dency of high scorers to consistently select concrete and literal items and reject more philosophical ones. This led to the conclusion that high scorers on the F-Scale tended to be literalistic, concrete and even materialistic in their religious orientation.

Agreeing with the criticism levelled by Christie (1954) and Shils (1954) against the F-Scale (Adorno *et al.*, 1950), Rokeach (1960) designed the Dogmatism Scale as a measure of general authoritarianism. The D-Scale claimed to make both theoretical and measurement advances.

The F-Scale was designed a technique for identifying fascists and was an indirect measure of prejudice (Adorno, *et al.* 1950, p. 1-11). On the contrary, Rokeach attempted to probe into the nature of open and closed belief systems, and sought to develop a satisfactory measure of openness-closedness of individual's belief-disbelief systems. It was important for Rokeach that the measure should reflect the structure of belief-disbelief systems, so that its items cannot he rejected by individuals who are authoritarian in their personality disposition but do not subscribe to a particular ideology e. g., Fascism.

To support his contention that Dogmatism scale is free from ideological content Rokeach (1960, p.6) carried out a study in which he administered Dogmatism scale (D) along with the Ethnocentrism (E), Authoritarianism (F), and Opinionation scales in U.S.A on four groups, namely, Catholics, Protestants, Jews, and non-Believers drawn from Michlgan and New York and in England on different groups of subjects having affiliations with different political parties, namely, Conservaties, Liberals, Bevanites, and Communists. He hypothesized that if his theoretical formulations were correct than the authoritarian left-of center groups and authoritarians right-of-centre groups should both score relatively high on the Dogmatism and Opinionation scales. Moreover, if the Adorno's (1950) F-Scale and Ethnocentrism scale measure only right authoritarianism and intolerance, then only authoritarian right-of-centre groups should score high on these scales.

The findings of Rokeach showed that Dogmatism was slightly but consistently correlated with Conservatism. The correlations between Dogmatism and Opinionation were also found to be positive and slightly higher than the correlations between dogmatism and left opinionation. The results on the whole show that authoritarian left-of centre groups namely, Communists and religious non-Believers, as well a sauthoritarian right-of-centre groups, namely, Catholics scored relatively higher on the Dogmatism and Opinionation scales. On the F and E scales, however, only the authoritarian groups to the right-of-centre scored high (Rokeach, 1960, pp. 109-116).

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In spite of the fact that the dogmatism scores were not found to be influenced by political affiliations. Rokeach could not overlook the facts that dogmanism showed slight but consistent correlations with Conservatism and that the correlations between dogmatism and Right-opinionation were also found to be slightly higher than correlations between dogmatism and left opinionation.

To account for these findings, Rokeach invoked the principle of compatibility, between content and structure of belief system. According to the principle of compatibility beliefs with the content serving the same motives as are taken care of by closed organisation are more prone to be included in a closed system. Interpreting his own findings in the light of the principle of compatibility Rokeach holds that dogmatism was more consistentlly related to conservatism and right-opinionation because the content of rightist ideology is more compatible with closed (dogmatic) organisation of belief system (Rokeach, 1960).

Further, there is enough empirical evidence which shows that authoritarianism, whether it is measured by Adorno's F-Scale (1950), or assessed by Rokeach's Dogmatism scale (1960), is related to certain socio-economic and political attiudes and values.

In a study of authoritarianism among persons with different political ideologies namely, right, centre and left. Barker (1963) found that organized leftists on the Ohio States Campus Scored significantly lower on Dogmatism scale than organized rightists. Same results were obtained for authoriptarianism as measured by the F-Scale. However, the relationship between Authoritarianism and political ideology was stronger than between Dogmatism and ideology. Barker concluded that dogmatism is related to a particular position on the political spectrum and that persons holding rightist attitudes are more dogmatic than those holding leftwing attitudes.

Karabenic and Wilson (1969) carried out a study to see the relationship between Dogmatism and attitudes towards the war in Vietnam. They found that dogmatism as measured by Rokeach's Dogmatism Scale (1960 was significantly related to subject's attitudes to the Vietnam War. Their specific finding was that subjects with anti-Vietnam war attitudes were significantly less dogmatic than subjects with pro-Vietnam war attitudes.

Karabenic's and Wilson's (1969) interpretation of this finding was that since pro-Vietnam war attitudes correspond to official government policy and anti-Vietnam war attitudes constitute break with the authority, dogmatics, due to their blind faith in positive authority, could not take any position except the official position. Non-dogmatics, on the contary, due to their lack of dependence on authority, were free to hold attitudes against American involvement in South-east Asia.

In April 1967, during the height of the Vietnam controversy, 150 male subjects were given a specially constructed Vietnam war attitude scale (Bailes and Guller, 1970) and Rokeach's Domatism scale. In the context of Rokeach's the ortical position (1954, 1956,

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1960) Bails and Guller (1970) hypothesized that (1) there may no significant correlation between scores on the Dogmatism scale (D) and Vietnam war Attitude Scale (V). (2) the D-Scale scores of pro-VNW and anti-VNW subjects may not differ significantly and (3) pro-VNW and anti-VNW subjects may show higher D-Scale scores than the moderate-VNW group.

The results of Bailes and Guller study led to the rejection of first and second hypotheses. It was found that there was slight but significant correlation (·25) between 'D' and 'V' scales and also that there was significant difference in the mean scores of pro-VNW and anti-VNW groups on the Dogmatism scale ($p. > .01$).

To test the third hypothesis, necessary group comparisons were made. The D-Scale scores of the ant-VNW and moderate-VNW groups were found to differ significantly. However, pro-VNW and moderate-VNW groups did not differ significantly on D-Scale scores. Bailes and Guller (1970) concluded that the obtained correlation between the 'D' and 'V' scales. although small (.25) was highly significant as it indicated an inverse relationship between Dogmatism and opposition to the Vietnam war.

Thus, Bailes and Guller's data yield results which are damaging to the contention of Rokeach (1960) that Dogmatism Scale in independent of ideological orientation.

Yet another important study was conducted by Izzett (1971) which showed that nonauthoritarians were not only verbally against the Vietnam war but they were behaviourally in compaigning against American government.

Izzett (1971) in his attempt to relate the F-Scale to a behavioural indicator of attitude towards the Vietnam war, took the advantage of a natural event which occured namely moratorium on the Vietnam war on October 15, 1969). He administered the F-Scale and a self-report questionnaire pertaining to the Vietnam war to 131 introductory psychology students. Sixty-five of these students actively demonstrated against United States involvement in the Vietnam war by not attending class on October 15, 1969, the date on which moratorium on Vietnam war was imposed. Izzet found that these 65 students scored significantly lower on F-Scale and had stronger anti-Vietnam war attitudes as shown by their responses to the self-report qustionnaires. He concluded that his results support the Karabenic and Wilson's (1969) finding that authoritarianism, as measured by the F-Scale, is related to subject's attitude toward the Vietnam war. It may be noted that this finding is confirmed on the basis of the results on both behavioural and self-report measures.

In a study, which may be looked upon as a replication of Izzett's investigation, Grainberg and Corrigm (1972) explored the relationship between two the measures of authoritarinism, namely, 'F' and 'D' scales on the one hand and attitudinal and action orientations towards the Vietnam war on the other. They found that both authoritarianism and dogmatism were inversely associated with dovish attitudes toward, and

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fewer protest actions against the war in Vietnam, Further, they found that the correlation between authoritarianism and attitude towards Vietnam war were significantly higher than between dogmatism and attitude towards Vietnam war. Among the students who were most anti-war, the number of protest actions varied inversely with authoritorianism but the relationship with dogmatism was not found to reliable. On the basis of above findings they concluded that although like authoritarianism, dogmatism is related to the indeological orientation, its correlation with the ideology is lower than the correlation of authoritarianism with ideology.

Thompson and Michel (1972) conducted the most significant study, which provides confirmation to the validity of Rokeach's claim that Dogmatism scale is a measure of general authoritarianism. To evaluate the superiority of D-Scale over the F-Scale Thompson and Michel explored the relationship of the two scales with three such variables as were considered to be important in the context of breadth of perspective interpretation of authoritarianism propounded by Kelman and Barclay (1963). According to Kelman and Barclay, the F-Scale is essentially a measure of bredth of perspective and as such is related to factor's condusive to psychological capacity to perceive things in shifting contexts, to toclerate different view points and factors responsible for making certain environmental opportunities available to the individual for broadening his perspec tive.

Thompson and Michel (1972) were intersted in two major problems : (1) How adequately does the breadth of perspective a approach serve as a theoretical guide for the utilisation of both the 'D' and the 'F' scales ? and (2) Does the D-Scale actually measure general authoritarianism, or does it possess the same conservative bias as the F-Scale ? The specific hypotheses which they wanted to test were as follows : (1) political conservatism is positively and similarly related to both authoritarianism: and dogmatism (2) Christian traditionalism is positively and similarly related to both authoritraianism and dogmatism. (3) Mental ability is inversely and similarly related to both authoritarianism and dogmatism. Using responses of 379 undergrduates on F-Scale, D-Scale and Political conservatism and Christian traditionalism Scale, Thompson and Michel (1972) found that authoritarianism can profitably be viewed, researched and interpreted as the reciprocal of individual's breadth of perspective because both of these scales were relatated to Christian traditionalism.

In order to verify Rokeach's claim that unlike the F-Scale is his D-Scale is a measure hf generalized authoritarianism, Hasan (1974) administered both the Dogmatism 'D' and 'F'-Scale two groups of subjects, one subscribing to Leftist political ideology, viz, a group of Communists (C. P. I.) and the other subscrebing to a Rightist political ideology, viz., a group of Jan Sanghies and Swatantrites. On the basis of mean scores and S. D., of the 'Rightist' and the 'Leftist' group on the Dogmatism Scale as well as on the basis of the significance of Difference between the two means, he found the 'Leftists' to bc less dogmatic than 'Rightists.'

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With reference to the controversy that F-Scale is ideologically biased or is compatible with attitudes and values, whereas the D-Scale is an ideologically free measure of authoritarianism, Ansari and Hasan (1976) carried out a study in which the relationships between the D and F-Scales, on the one hand, and four value orienations, namely liberalism (vs. conservatism), scientism (vs. fatalism), environmentalism (vs. hereditarianism) and authoritarianism (vs. non authoritarianism), were evplored.

The adapted D and F- Scales (Hasan, 1974) alongwith the value orientation scale (Ansari, 1964) measuring the four value orientations, viz., Conservatism-Liberalism, Fatlism-Scientism, Hereditarianism-Environmentalism, Authoritarianism-Nonauthoritarianism, were administered on 203 undergraduate male students in the age range of 20—25 years- Product-moment correlations were run between the scores on different variables and the matrix thus obtained was faotorized by Thurstone's Centroid Method. They found that (a) Both the D and the F scales were significantly correlated with each one of the four value orientations, the D-Scale showed slightly higher correlations than the F-Scale, and (b) the two measures of authoritarianism were not only correlated to the extent of .539 but also resembled in their patterns of loading on the factors emerging out of the matrix of intercorrelations among the variables. The above findings indicate that Rokeach was not completely successful in eliminating the ideological component from his D-Scale.

The above review leads to the conclusion that personality is the most important determinant of indivduals ideology. Even those personality characteristics which are supposed to be formal and do not possess any thematic quality are associated with certain beliefs in respect to philosophical, social and economical issues.

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Some EPPS Differences Between Male Delinquents and Non-Delinquents

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The Edwards' Personal Preference Schedule (EPPS) translated in regional language and standardized was administered to one hundred literate male adolescents (fifty delinquents and fifty non-delinquents) ranging in ages from 14-18 years. An attempt was made to determine any significant differences among male delinquents and non-delinquents in the need patterns, scored on fifteen dimonsions based on Murray's system of manifest personality need. Furthermore an attempt was also made to find out if the EPPS was a valid tool to identify the delinquents in Indian conditions.

The sect that significant differences between the groups on the need 'endurance' but not in the needs 'aggression' and intraception which are typically described in the literature as distinguishing delinquents from non-delinquents indicate that with certain modifications on the EPPS items to suit Indian conditions, particularly the delinquent population, the schedule could easily bring out more significant difference. The differences found were mostly inconformity with theoretical expectations which clearly indicate that the EPPS could be sufficiently regarded as an effective tool for use in identifying or describing a delinquent population.

Need has been regardrd as a directional force within the organism. 'A need is a hypothetical process, the occurence of, which is imagined in order to account for certain objective and subjective facts, (Murray, 1938). Thus manifest needs are those which take the form of real action. They are permitted immediate and undisguised expression and are likely to be expressed in motor behaviour. Although man's basic psychological requirements are less readily identified his requirements for food, water, sleep and the like, there is widespread agreement that psychological needs mast be met if the individual is to maintain his personality integration and to function effectively.

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As a mode of behaviour, which is one part of the stream of life's activities, delinquency must have as much meaning in the total order of happenings as socially acceptable forms of conduct. Stated in terms of general principle the origin of delinquency in every case unquestionably represents the expression of desires and urges which are otherwise unsatisfied. There is clear evidence that in the life of delinquents, the everflowing stream of urges and needs, which in general follow the broader channels of socially acceptable behaviours, had met obstructions or frustrations that cause part of the stream to be deflected into currents that sooner or later show the characteristics which Healy and Bronner (1936) term delinquency.

Despite widespread use of the EPPS, few studies are available that test the ability of the instrument to differrenciate target populations of presumed differing personality characteristics and only one of these (Pasewark, 1968) was concerned specifically with an adolescent population. Yet, it is reasonable to assume that if the instrument is one that can be employed with confidence, scores on each of the personality dimensions, it purports to measure, should differ among no sociological groups with theoratically different need constellations. No endeavour appears to have been made so far, to study how in an important problem like delinquency, manifest needs operate in male adolescents and to see if these needs could be used as possible non-cognitive predictors of delinquency.

Pasewark, Davis and Pitzgerald (1968), utilized the EPPS with disturbed adolescents. The EPPS was administerted to groups of hospitalized and non-hospitalized adolescent boys and girls. The males showed significant differences between groups on deference, order, dominance and heterosexuality scales. The use of the EPPS to differentiate hospitalized from non-hospitalized adolescents was questioned.

Watson, Pasewark and Fitzgerald (1970) attempted to determine if EPPS scores differentite institutonalized delinquent and nondelinquent adolescents. Results show, in general, few significant mean differences between delinquent and nondelinquent groups. On no EPPS dimension did delinquent males score significantly higher than the male non-delinquents, but they did score significantly lower on the variables of achievement, deference, affiliation and dominance. These lower scores are in accordance with expectations held for Glueck's longitudinal study of delinquents as characterized by under achievement, non-conforming, revolt against authority and custom. markedly less co-operation and more distant disonal relationship and less aptness in assuming the leadership and arbiter roles supposedly measured by the EPPS 'Dominance' variables. Significant differences were not found in three other EPPS variables-aggression, endurance and intraception that were typically described in the literature as distinguishing delinquents from nondelinquents. Watson, Pasewark and Fitzgerald thus came to the conclusion that generally, the inconsistency of male and female delinquents scores on the EPPS in addition to the failure of the test adequately to describe presumed delinquency need constellations shows that the EPPS could not be regarded as an effective tool for use, in identifying or describing a delinquent population.

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It was for this reason that the authors of this study purpoted to investigate whether or not the instrument used was applicable for use to identify with the delinquent in Indian conditions.

Research into the personality characteristics of juvenile delinquents has produced little in the way of conclusive, replicated results. Thus the idea that delinquents have personality charcteristics which differentiate them from nondelinquents has not been sufficiently supported. This may be due to (a) a lack of personality differences between delinquents and non-delinquents (b) the fact that the scales and methods used in the research have not been sensitive enough to detect differences (c) The assumption upon which the research is based is invalid. But there can be no doubt that it is the obstruction of the needs and resultant frustration that lights a spark in the individual leading to the development of delinquent behaviour.

Objectives

The purpose of the study was two folded :

1. To investigate the manifest needs associated with each of the 15 EPPS variables in relation to delinquents and nondelinquents.
2. An attempt to find out if the EPPS was a valid tool to indentify delinquents from the normal Indian Population.

Subjects

Two samples of subjects were drawn and identified as delinquents and nondelinquents.

Delinquents

The sample consisted of 50 delinquents in the age range of 14-18 years, selected from the Government Reception Home for Boys and Girls, Egmore, Madras. These are the specific individuals whose behaviour have been determined by the low enforcement officer and/or citizens of the community to be in violation of the State's legal code as it applies to individuals designated as minors and which lead to direct juvenile court action.

Nondelinquents

The non-deviant or attending school population includes only those who were registered in the Corporation Schools. The 50 nondelinquent boys, studying in classes VIII and IX were attending corporation schools in Madras City.

The socio-economic background of both delinquent and nondelinquents groups was almost similar. Thus, a total of hundred adolescent boys were made use of. Care was taken to match intelligence, age and socio-economic factors. Those who did not read Tamil excluded since the Tamil version of the EPPS test was used. For verification purposes, variety of persons were asked to review the questionnaire and then a pilot study was conducted on 14 delinquents and 14 nondelinquents to find out the instruments reliability and feasibility.

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The test-retest and the split-half reliabilities of the Tamil version of the EPPS were reported to be 0.79 and 0.6 respectively.

RESULTS AND DISCUSSION:

The operational definition of manifest need is the score obtained by individuals on the standardized EPPS. The final analysis of the data, consisted in determining the significant differences in the basic need patterns of delinquents and nondelinquents. The first step in the statistical analysis of the data was to find out the mean and standard deviation for each variable, for the Ss. In order to determine whether the means of the 2 groups differed significantly the SEs and CRs were calculated. As a result it became possible to see which of the 2 groups was more oriented towards the particular variable and the level at which the obtained results were significant. Apart from using the 0.05 level of significance, the level of significance beyond 0.01 level and at 0.001 level have also been computed in this study.

Table 1

RESULTS FOR THE FIFTEEN MANIFEST NEEDS ON THE EPPS OBTAINED BY THE DELINQUENTS (N=50) AND NONDELINQUENTS (N=50)

Epps Variable	*Delinquents*		*non-delinquents*		*SE.*	*CR.*	*P.*
	X	*S.D.*	*X.*	*S.D.*			
Ach	16.44	2.93	16.71	3.31	0.63	0.45	ns
Def	12.78	2.80	14.64	3.86	0.57	2.29	0.01
Ord	14.54	3.21	16.72	4.07	0.73	2.98	0.01
Exh	13.58	3.11	12.72	3.51	0.66	1.80	ns
Aut	12.54	2.91	10.86	2.96	0.59	2.86	0.01
Aff	13.58	3.45	13.14	3.19	0.67	0.66	ns
Int	12.70	3.33	13.22	3.35	0.69	0.76	ns
Suc	14.50	3.59	11.80	3.90	0.75	3.61	0.001
Dom	14.96	3.09	13.86	3.29	0.64	1.72	ns
Aba	16.02	3.08	17.40	3.51	0.66	2.09	0.05
Nur	16.98	3.16	17.04	3.12	0.63	0.00	ns
Cha	14.50	4.10	14.22	3.16	0.73	0.38	ns
End	15.94	3.26	19.10	3.92	0.72	4.38	0.001
Het	9.34	3.46	7.18	4.72	0.83	2.61	0.05
Agg	11.58	3.16	11.38	3.72	0.73	0.37	ns

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The results on the 15 manifest needs depicted in the Table show that the delinquents have scored significantly higher than nondelinquents on needs-autonmy, succorance, and heterosexuality and significantly lower on needs difference, order, abasament and endurance. No significant differences was found between the 3 groups on eight of the 15 variables. These findings are somewhat in accordance with the results obtained by Pasewark, Davis and Fitzgerald (1968), who conducted that the adolescent males showed significant difference between groups in EPPS difference, order, dominance and heterosexuality scales.

The fact that this study revealed no significant difference on the need dominance could be due to various reasons, on being that since the EPPS is a paper-and-pencil inventory, it calls for the influence of social desirability. Although the social desirability has been minimized in the EPPS to a large extent, some of it might have seeped though to influence the adolescents to appear more acceptable.

Further more the results of Watson, Pasewark and Fitzgerald (1970), in their attempts to determine if EPPS scores differentiate institutionalized delinquent and nondelinquent adolescents, show few significant mean differences between them. On no EPPS dimension did delinquent males score significantly higher than the male nondelinquents, but they did score significantly lower on the variables of achievement, diference, affiliation and dominance. The results obtained in this study are, however, not in accordance with the results obtained by Watson, Pasewark and Fitzgerald. In this study, the delinquent males have scored higher than nondelinquent males on needs-autonomy, succorance and heterosexuality and significantly lower on needs-deference, order, abasement and endurance. Differences in the 2 studies may be due to the fact that the delinquents and nondelinquents in the Watson, Pasewark and Fitzgerald study were institutionalized adolescents whereas in this study, the Ss were on the point of institutionalization. Moreover, their study revealed no significant difference on the EPPS variables-aggression, endurance and intraception, that are typically described in the literature as distinguishing delinquents from nondelinquents. However, this study has revealed a difference on the endurance scale, that is, nondelinquents showed a higher score on the need 'endurance' than the delinquents. Moreover Pati (1966) in probing the aggression proneness of delinquents found no delinquent group to be more aggression prone than the control group.

A significant difference beyond the 0.001 level was found between delinquents scoring higher than the nondelinquents on the 'succorance' personality variables. Adolescents in Indian homes are more dependent on the family members than are adolescents in other countries, where being independent is taken for granted. Therefore, a delinquent who has already been thwarted by his family members would tend to seek sympathy and understanding, to receive affection and seek encouragement from others.

Since the test is designed to elicit motivational patterns, rather than symptoms of disturbance, it is better suited to exploring the psychodynamics of normal personalities than the diagnosis of deviant types. Therefore, the EPPS has most effectively identified the

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delinquent from the nondelinquent population. This is contrast to the findings of Watson. Davis, Pasewark and Fitzgerald (1970) who found few significant differences and where delinquent males had not scored significantly higher than the nondelinquents on any of the needs. However, in the present study the EPPS has distinguished delinquents from nondelinquents, effectively on seven of the needs with delinquents scoring higher in needs-autonomy, succorance and heterosexuality. On the whole, the EPPS can be recommendel for use with delinquents with slight modification in some of the items to suit Indian conditions. The EPPS proved to be useful and successful in identifying delinquents from normal Indian populations.

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Some Psychological Correlates of School Achievement

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Twenty five low and high achievers each were compared for their adjustment, conflict and frustration, t-ratios depicted that the higher adjustment was conducive to the better achievement, lower level of extroversion, conflict and frustration proved to be favourable for better achievement.

INTRODUCTION

Achievement is described as the attainment or the accomplishment of an individual in some or a particular branch of knowledge after a certain period of training. The achievement score indicates towards the future success of the individual. Now-a-days, achievement measurement has occupide a great importance as the majority of the educationists at all levels are of the opinion that the assessment of the educational progress is essential to effective education. Several factors affect the school achievement of the students. Intelligence, interest, aptitude hard labour, method of learning, etc. are the important factors which play significant role in school achievement of the students.

Apart from the above cited factors, some other psychological factors have also been found to affect the school achievement. For example, Griffiths (1945) and Goodstein & Heilbum (1958) using college students as subjects and Gough (1953) using high school students found personality to affect the achievement score. Merril and Murphy (1959) found over-achievers to be more dominant and more enduring than the under-achievers.

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Jamuar (1961) has reported close relationship between home, emotional and social adjustments and introversion on the one hand and the academic adjustment on the other. Academic achievement of Engineering students was students by Misra (1962) who found that the high and the low achievers differed in their anxiety and neuroticism but not in intelligence. Sharma (1964) found the positive influence of anxiety on academic achievement. Rao (1964, 1967 b) studied the relationship between academic achievement and adjustment and found that adjustment problems were related to under-achievement in scholastic field and that the problems of motivation hindered scholastic achievement. Lourenso, Greenberg and Davidson (1955) found that personality characteristic differed in schoel achievement. They noticed that low achieving boys diverged from other groups and showed low self-esteem whereas the high achievers generally followed the directions more carefully than low-achievers. A study by Flaberty & Rentzel (1965) revealed significantly higher degree of dominance capacity for status, sociability, self-acceptances responsibility, tolerance, achievement via conformance, achievement via independance, intellectual efficiency and faminity in high achievers and trait flexibility for low achiebers. Tripathi (1965) investigated academic success to be related to personality problem. Kanungo, Pande and Chaudhry (1965) analysed the problems of teenagers in relation to the school achievement and found the achicvement being unaffccted by adolescent 'worries'.

A study by Muthayya (1965) showed no difference in high and low achievers in respect to intelligence, aspiration level and frustration-reaction. However, significant difference in the need for achievement of thc high and low achievers was noted. He further concluded that achievement was negatively related to obstacle dominance among high achieving groups. A comparative study on a few personality variables between two groups of students—those who were regularly promoted and those who failed in schools—was carried out by George and Abraham (1966). They observed no difference in these two groups as regards to evtroversion and neuroticism. On the other hand, Devadson (1966) found low negative correlation between extroversion and achievement and a posi ive correlarion between neuroticism and achievement. In another study, Sinha (1966) found high achievers having low anxiety, better health, emotional adjustment than the low achievers. On the contrary, Ali (1967) found no difference between bright and dull children on behaviour problems. Muthayya and Rajeshwari (1968) compared backward children and normal children and found that backward chlldren showed high tendency towards extroversion but no difference was observed in emotsonal stability and need for achievement in the two groups. George and Nair (1968) investigated relationship between academic performance and personality and found positive correlation between poor performence in Practical Examination and emotional stability. Mehta (1961) investigated the relationship between achievement motive and academic achievement. Bhatnagar (1969) noted a direct relationship between positive and negative self-concepts and high and low achievement.

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There are many other investigators who have studied personality factors of low and high achievers. Notable among them are—Gebhart (1945), Gebhart and Hoyt (1958), Krug (1959), Bhatnager (1959, 1966, 1969), Knafle (1965), Mehta (1973) etc. These studies clearly indicate that personality factors are significant determiners of the educational achievement of the individual. But still further evaluation of the impact of psychological factors on such an important aspect like scholastic achievement is needed in order to develop an effective educational system. Therefore, the present study was undertaken to evaluate the effect of psychological factors like adjustment, extroversion, conflict and frustration on school achievement.

METHODOLOGY

Subjects

Fifty male students of class eleven were used as subjects for the present study.

Materials

Four tests were administered on each subject —Asthana's Adjustment Inventory (1976). Personality Test (1971) which measures extroversion-entroversion, Hindi Version of Hama's Conflict Scale (1971) and Frustration Test standardized by Chauhan & Tiwari (1972) These tests were administered in small groups, the order of presentation of the four tests being random. Only one test was given at a time.

RESULTS AND DISCUSSIONS

Our main concern in the present study was to investigave the effect of Adjustment, Extroversion, Conflict and Frustration on school achievement. For this purpose, total marks obtained by each student in the last examination (X class) was noted from the school record and then the percentage of marks obtained by each student was worked out. In order to see the effect of Adjustment on school achievement, the students were divided into low and high adjustment subgroups taking the median adjustment score as the basis. Then 't'-ratio was computed to see whether the achievement score of low and high adjustment subgroups was different or the two subgroups showed equal achievement. The same process was repeated for low and high scores on Extraversion, Conflict and Frustration. The results are shown in the following table.

Table : The average achievement scores of Low and High Adjustment, Extraversion, Conflict and Frustrat on subgroups, and the 't'-values.

Factors	*Comparison Group*	*Average Achievement Scbre*	*'t' value*
Adjustment	Low	50.25	2.81**
	High	54.67	
Extraversion	Low	54.77	3.19**
	High	50.15	
Conflict	Low	53 99	
	High	50.93	2.66*
Frustration	Low	55.35	
	High	49.57	5.16**

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When we consider the average achievement scores of low and high adjustment subgroups, we find that the subjects of low adjutsment group obtained only 50.25% marks whereas those of the high adjustment group obtained 54.67% marks. When this difference was tested statistically, it was found to be significant (t=2.81. df=24) at .01 level of confidence which reveals that persons having higher degree of adjustment are better in school achievement than the persons having lower degree of adjustment. Adjustment is defined as the process by which a living organism maintain a balance between its needs and the circumstances that influence the satisfaction of these needs. A good school achievement is also an important need of a student. Failure in academic achievement may disturb in the adjustment of the student. This fact is obivous from the present finding that higher degree of adjustment helps in getting a better school Achievement. Similarly, lower degree of adjustment results into poorer school achievement.

Our second problem was to investigate effect of high and low extroversion on achievement. The average achievement score for low and high extroversion subgroups are 54.77 50.75, respectively. The difference of these two means was found significant (t=3.19, df= 24 significant at .01 level). It signifies that the persons with greater degree of extroversion are poorer academic achievement.

Extroversion and introversion are the two different categories of personality (June, 1920). An extrovert is supposed to be one whose orientation is towards the external world. He is generally governed by the objective facts and by a perception of necessity and social expediency; he seeks the company of others when he is under distress and is very much sociable; he can very easily develop friendship and can adjust himself in different companies. On the otherhand, introvert's orientation centres on himself and his subjective world to an inner world of thoughts; he tends to withdown into himself particularly when he is in some sort of emotion, anxiety, distress and conflict ; he generally cannot develop friendship with others and feels quite uneasy in any new company.

The findings of the present study show that higher degree of extroversion leads towards poorer achievement. In other words, the higher degree of introversion helps in getting higher marks in examination. It confirms Devadsan's (1966) findings who found low negative correlation beween achievement and extroversion. It is due to the fact that the extrovert students are more close to society and they make many friends which results in spending a great deal of their time among the society members and friends. Thus, they do not devote much time in their studies. As consequence, they fail to secure good marks in school examinations. On the contary, the introvert students quite away form the society; they do not have much friends, they cannot mix easily among others. Because of this, there is no better way for them to spend time than to engage in study. This natural compulsion of study facilitaties them in getting higher marks in the examination than can do the extroverts. Thus, it is established that higher degree of extroversion negatively effect the achievement.

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Our next problem was to see whether the low and high conflict subgroups differ in their school achievements. We see in the Table that the subjects of the low and high conflict subgroups have obtained 53.99 and 50.93 percent marks, respectively. When this difference was tested statistically by computing 't' ratio (t=2.66, df=24, significant at .05 level), it was found to be significant. This finding clearly shows that conflict is a significant variable which affects the academic achievement of the students. Higher degree of conflict is defined as a situation where two or more incomptible needs, goals or courses of action compete, causing the organism to feel pulled in different directions with an attending sense of discomfort. It is why the conflict is the main source of stress and frustration which leads the individual to such a stage that his capacities are seriously impaired. Conflict may lead the students to a undecisive state of mind where they may find themselves unable to concentrate their minds towards their studies. Several investigators (Pavlov, (1927, 1958; Gantt, 1936; Messerman, 1943 etc.) have observed that animals developed neurotic symptom if they were forced to choose between two underived alternatives or to make discriminations which were beyond the range of their sensory abilities. This seemstrue in case of human beings also. Freud (1924, 1936) has emphasized that serious emotional conflicts developed during childhood result into neurotic behaviour in later age. Serious neurotic symptoms hamper the performance of the individuals in various walks of life including academic achievement. The present study amply testifies that higher degree of conflict negatively affects the school achievement of the students.

Our last problem was to study the effect of frustration on achievement. For this purpose, the average achievement scores of low and high frustration subgroups (55.35 and 49. 57 percent, respectively) were compared for the significance of their difference using 't' test, was found that the low and high frustration subgroups differed significantly (t=6 .16, df=24, significant at .01 level) meaning thereby that the students of low frustration aubgroup achievement better perentage of marks (55.35) than the high trustratin subgroup (49.57).

The present finding is in expected direction. Frustration occurs when any behaviour sequence is blocked or when a person faces the conflicting situation or when an individual anticipates a given outcome but is disappointed. Frustration is an important determinant to disrupt the learning of appropriate adjustive mechanism. It disorganizes the cognitive process which is necessary for better adjustment. The present findings show that higher degree of adjustment makes the students better adjusted. Several other investigators (Rao, 1964, 1967 b, Sinha, 1966) have also reached the same. In a nutshell, it can be assumed that high degree of frustration leads to poorer achievement.

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A Shorter Version of Sinha's W. A. Self-Analysis Form

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So as to curtail the time required in the administration of 100-item Sinha's W. A. Self-Analysis Form (Anxiety Scale), its shorter version comprising 30 most discriminating items was prepared. The shorter version was found to bear a correlation of .79 with the full scale. The split-half reliability of the shorter scale was found to be .72 (corrected). The validity of the shorter version was determined by correlating the scores on this scale with the scores of the subjects on Maslow's Security-Insecurity Inventory and Cattell's Scale of Ergic Tension included in his 16-P.F. Questionnaires. The correlations of scores of the shorther scale with Maslow's S-I Inventory and Cattell's Scale of Ergic Tension were found to be .535 and .531 respectively. The percentile norms of the shorter scale were also prepared.

Sinha's W. A. Self-Analysis Form (1968) which aims at measuring the anxiety level of the respondents is a widely used research tool in India. It consists of 'true' and false' type of items. If a researcher is using a battery of tests in his study, it becomes very cumbersome to get the cooperation of the subjects due to the lengthiness of the tool. A shorter version of Sinha's W. A. Self-Analysis Form was therefore needed so as to yield anxiety scores which are reliable and valid as obtained by the full scale.

METHOD & PROCEDURE

Item Analysis

Sinha's W. A. Self-Analysis Form was administered on 93 subjects falling in the age group of 16-20 years of different colleges of Aligarh District. A frequency distribution of total scores of the subject, obtained by giving .1' mark for each 'yes' response was prepared. To identify a 'high' and a 'low' group P 27 were calculated. Scripts of the subjects scoring P_1 and above P_2 and below were sorted out in two piles. An items analysis chart showing the frequency of 'yes' and 'no' responses given to each items by the subjects of high and low groups was prepared. The proportion of Keyed responses given by the upper and lower$_3$ per cent of the subjects were obtained by dividing the total number of subjects in the respected group. This enabled to obtain This values for each

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items with the help of the prepared by Flanagan (Guilford, 1975), Items with more than .60 value are included in the shorter version. In all 30 items were selected.

Reliability

The Split-half reliability of this shorter scale was found to be .72 (corrected).

Validity

The validity of the shorter version was etermined by correlating the scores on this scale with the scores of the subjects on Maslow's Security-Insecurity Inventory (1952) and Cattell's scale of Ergic Tension included in his 16. PF Questionnaire (1965). The correlation of scores of the shorter scale with Maslow's S-I Inventory and Cattell's scale of Ergic Tension were found to be, 531 and .531 respectively.

Norms

To prepare norms the shorter scale was administered on the group of 420 University and Collage student. The frequency distribution and the table of norms given below :

Frequency Distribution		*Table of Norms*	
	Point		
27—29	21	P90	20.08
24—26	34	P80	17.60
21—23	65	P70	15.54
18—20	63	P60	13.80
15—71	90	P50	12.12
12—14	61	P40	10.74
9—11	51	P30	8.78
6—8	27	P20	6.80
3—5	6	P10	4.35
0—2	2		
	N=420		
Mean=15.70			
S. D.= 5.71			

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A Study of Personality and Adjustment of Criminals

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INTRODUCTION

Crimes range from petty theivery to premediated murder and it is apparent that "the lure of an apple to a hungry child is more alluring and different from the murderer's impulse to kill a rival gangster or a wife's lover' (Elliott, 1952). The biologist, anthropologist, sociologist, psychologist and the clergyman, all want to know was it is about the individual which makes him break the law. The biologists held that a large number of criminals are biologically defective (Lombrosso, 1911 ; Ferri, 1917 ; Hootan, 1939), The psychiatrists stressed the emotional frustrations and hatreds that have led men into open opposition of conduct norms (Healy and Bronner, 1936 ; Crossbard, 1962). Emotional insecurity may explain certain types of crimes but the sociologists maintain that most crimes that are committed have their roots in the deteriorated, depressed and poverty stricken areas where anti-social and criminalistic behaviour patterns are established and passed on from generation to generation (Merton, 1957). The Psychological theories of criminal behaviour lean heavily at present towards personality factors (Elliott, 1952). But the trend now a days is toward a theory of "multiple-causation" approach. Eysenck (1970) has tried to combine the sociological and psychological factors in a general interactionist theory explaining criminal behaviour.

According to Esysenck (1970) antisocial conduct was evidence of lack of proper socialization that socialization itself was due to the formation in childhood and youth of appropriate conditioned responses; as these from less easily in extroverts, they are more likely to commit antisocial and criminal acts. Studies by Lykken (1957), Schalling and Holmberg (1970), Mills (1971) supported this deduction.

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Eysenck (1964, 1970) had seemingly given a great deal of importance to the dimension of extraversion in the causation of criminality. Burgess (1972) feels that the dimension of Neuroticism perhaps is more important and relevant to the theoretical model of criminality offered by Esenck. Eysenck's concept of Neuroticism in terms of a drive state is not a new one and has been spoken of as anxiety by various psychologists. Eysenck (1970) in stating his theory of criminality said that Neurotics are high on anxiety or emotionality and that anxiety acts as a drive which multiplies with habit. In most of the studies, the samples of prisoners have been found to score higher on N than the controls (Eysenck, 1970 ; Singh, 1973 ; Shanamugam, 1975). Eysenck further contends that a certain proportion of criminals which are often considered as most difficult, inveterat and incurable would be expected to score high on Psychoticism, which is characterized by the traits like solitary, troublesome, cruel, insensitives, sensation seeker, aggressive, fool hardy, making fool of others and like (Eysenck, 1970). Many studies support these deductions (Segraves, 1969; Burgess, 1972; Singh, 1976; Mohan and Singh, in press).

Crime and Adjustment

The process of socialization is nothing but learning of behavioural patterns approved by the society. Human beings make constant adjustments toward themselves in relation to others so that they may lead a life acceptable to society. At the same time unfavourable heredity, low intelligence, personality imbalance unsatisfactory parent-child relationship broken homes, distasteful occupation and like may so handicap the individual or obstruct his attempts at self expression or adjustment to life problems so as to create a situation favourable for the appearence of criminal behaviour (Page, 1947). As such one may suggest that criminals, who have already drifted away from the societal norms should have lesser adjustment in the areas of social, emotional, home and vocational front.

There have been some studies relating maladjustment to propensity to crime (Toby, 1957 ; McCord and McCord, 1959). Wilkins (1960) reports a positive correlation between low home adjustment and delinquency. Ray Chaudhari *et al.* (1963) found crowding in home, uncomfortable home conditions poor family discipline and parental discord predminant in the early life of delinquents. Various other investigators have found criminals to have lower emotional adjustment (Healy and Bronner, 1936; Shanamugam, 1953; Gluecks, 1956 ; McCord and McCord 1959). Singh (1976) found that the criminals were very poorly adjusted to home and emotional Problems as well as to occupation and societal relations. In the light of these studies it may be suggested that the home, emotional, occupational and social adjustment only as viewed by the researchers, but also as percived by the criminal himself will be poorer.

Hypothesis. : In light of the review of literature it may be hypothesized that :

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(a) The criminals will show a low home, health, occuptaional, social and emotional adjustment as compared to the non-criminals.

(b) The criminals would be scoring high on P. E. and N as compared to the non-criminals.

(c) If criminals score higher on P. E. and N. then their home, health, occupation, social and emotional adjustment would show an inverse relationship with these personality dimensions.

METHOD

Sample : A total of 260 male subjects (100 non-criminals and 100 male prisoners from the jails of Patiala, Nabha and Ludhiana) constituted the sample for the present study. Only those prisoners were selected in whose case the crime had been proven and who were undergoing imprisonment. Care was taken to have an equal distribution of the various types of crime as defined in IPC ; first offenders and recidivists and those coming from rural and urban backgrounds. The duration of imprisonment was controlled by not letting it exceed 3 years ; the socio-economic background (middle class), education (below Higher Secondary level) and age (upto 40 years) was well mached for the criminal and non-criminal populations.

Tests Used

The tests used were PEN (Eysenck and Eysenck, 1970) for measuring extraversion (E/I) : neuroticism (N) and Psychoticsism (P) ; and Bell's Adjustment Inventory (1937) for measuring home, health, occupational, social and emotional adjustment, But since the prisoners belonged to primarily Punjabi speaking areas, the Punjabi translated versions (Singh, 1976) of these two tests were used. The reliability and validity of Punjabi translated versions of PEN and Bell,s adjustment inventory has been reported in earlier studies (Singh, 1976 ; Singh, 1979 ; Mohan and Singh, in press).

RESULTS

The scores of E/I, N. P. and L on PEN and of the 5 adjustments alongwith the overall adjustment were found and means calculated for the sample of criminals and non-criminals separately. Means were further subjected t-test to find out the significance of the difference between two means. The means and t-ratios for these 13 scores are presented in Table I.

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TABLE I

Showing the Means SD's and t-ratios for the Adjustment and Personality scores of Criminals and Non-criminals.

	Criminals		*Non-criminals*		*t-ratio*
	Mean	*SD*	*Mean*	*SD*	
Home	18.7	4.61	20.5	4.87	3.05*
Health	19.6	4.86	21.8	5.44	3.38*
Occupation	17.7	5.11	20.6	3.21	5.68*
Social	17.2	4.96	20.2	4.61	5.00*
Emotional	17.9	5.31	22.8	4.77	7.90*
Total	89.6	18.48	87.1	74.57	3.64*
P	9.3	2.64	4.9	2.11	15.17*
E	9.7	3.41	9.2	2.91	1.28NS
N	8.9	2.49	7.6	2.12	4.64*
L	5.6	2.45	5.2	2.97	1.17-11

*Significant at .001 level.

A comparison of the scores of non-criminals with that of criminals, shows that the latter have poorer Adjustment in all the areas but the highest discripency is in the area of home and emotional Adjustment and least in social. At the same time, they have scored very high on all the three dimensions of personality, namely, L. E. and N.

The scores of the criminals on these 10 variables were further subjected to the computation of inter-correlations by the Pearson's Product Moment method (Guilford, 1956). The correlations are presented in Table II.

From Table I, it is quite evident that home, health, occupational, social and emotional adjustment show very high positive correlations among themselves as well with total adjustment. Similar is the trend of correlations on E/I, N and P dimensions. These results indicate formation of clusters and in order to give these clusters some statistical legitimacy, factor analysis was applied to the inter-correlation matrix (Table II) by the method of principle axis (Fruchter, 1967). Four factors were extracted, since the latent root for the 4th factor was less than one, extraction of further factors was stopped (as recommended by Kaiser, 1958). The total variance of these factors was 74.83%. In order to obtain clusters which would be orthogonal and have clear cut psychological meaningfulness, the four factors were rotated by the method of varimax rotation (Kaiser, 1958). The factor loadings of the unrotated and rotated factorization are presented in Table III.

DISCUSSION

Looking at the results of the present study, we find that as predicted, criminals have lower adjustment on all the five dimensions viz., home, health, occupation, social

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TABLE II

Intercorrelation Matrix of Bell's Adjustment and PEN Inventory scores of Criminals.

	Home	*Health*	*Occupation*	*Social*	*Emotional*	*Total*	*P*	*E*	*N*	*L*
Home	—	+.369**	+.409**	+.192	+.470*	+.698**	—.230**	—.130**	—.321**	—.080
Health	—	—	+.337**	+.289**	+.381**	+.698**	—.186*	—.111	—.365**	—.081
Occupapation	—	—	—	+.337**	+.394**	+.698**	—.111	—.045	—.285	—.121
Social	—	—	—	—	+.411	+.611	—.150	+.123	—.151	—.010
Emotional	—	—	—	—	—	+.764**	—.217	—.066	—.404	—.070
Total	—	—	—	—	—	—	—.1251	+.011	—.440	—.040
P	—	—	—	—	—	—	—	—.178	+.472	—.029
E/I	—	—	—	—	—	—	—	—	—.196	—.061
N	—	—	—	—	—	—	—	—	—	—.031
L	—	—	—	—	—	—	—	—	—	—

Significant at .05 level. Signi cant at .01 level.

TABLE III

Unrotated and Varimax rotated factor loadings for adjustment and PEN scores of Criminals.

	UNROTAED				*h2*	*ROTAED*				*h2*
	Factor I	*Factor* II	*Factor* III	*Factor* IV		*Factor* I	*Factor* II	*Factor* III	*Factor* IV	
Home	+.70	—.12	+.23	—.29	.6414	+.74	—.13	+.17	—.22	.6418
Health	+.68	+.18	+.12	+.17	.5681	+.58	+.21	—.14	+.31	.5482
Occupational	+.67	+.19	+.30	—.38	.7194	+.77	+.05	—.18	—.07	.6327
Social	+.58	+.35	—.18	+.28	.5697	+.54	—.14	+.14	+.49	.5701
Emotional	+.77	+.26	+.04	—.49	.9002	+.73	—.26	—.00	+.05	.6003
Total	+.97	+.18	+.09	—.07	.9463	+.95	—.23	—.00	+.16	.9810
P	—.42	+.58	+.18	—.48	.7756	—.06	+.88	—.06	+.04	.7832
E	—.08	+.73	+.00	+.49	.7794	—.07	+.19	—.07	+.86	.7855
N	—.61	+.47	+.25	—.23	.7084	—.33	+.75	—.08	+.13	.6947
L	—.62	+.03	+.71	+.20	.9294	—.03	+.00	+.97	—.03	.9427
	4.2108	1.1965	1.1310	.9442		3.322	1.628	1.056	1.179	
% of Contribution	—42.11	11.96	11.31	9.45		33.32	15.98	1.056	11.80	

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and emotional as compared to the non-criminals ; the highest discrepency is in the areas of emotional and home adjustment and least in social.

Adjustment also seems to be a composite behavioural tendency for criminals. All the intercorrelations on the five adjustments were positive and significant and culminated into one major factor (see Table III, factor I). The poor overall and individual adjustments of criminals speak volumes of their poor socialization. These results further support the findings of earlier studies (Singh, 1976 ; Singh, 1979 ; Mohan and Singh, in press).

Our second variable of study was the personality of criminals. The comparative means of criminals and non-criminals on P. E/I and N show that the criminals in the present study are scoring very high on Psychoticism in comparison with non-criminal sample. This finding is very much in line with Eysenck's (1970) theory implicating P in the causation of crime as most of the items on P are saturated with processes closely related with criminal tendencies. In many other studies criminals have been found to score higher on P as compared to non-criminals (Eysenck, and Eysenck, 1971 ; Eysenck, 1973 ; Singh, 1976).

Like the findings of Schalling and Holmberg, (1970), Singh (1973), Shanamugam who found criminal to score higher on Neuroticism, the present sample of criminals too obtained higher N scores in comparison to the non-criminals.

Another feature of present study is that N and P are showing significant correlation, .472 (see Table II) and also a heavy factor loading for both in the same group viz. 88 and .75 (see Table III). It implies would the criminals be higher on P and N and this relationship may further have its effect on various other behavioural responses. Burgess (1972) too was of the view that it was N which was more relevant to crime.

As regarding E/I, the differences between the two groups are too meagre to be statistically significant. Eysenck (1963) and Schalling and Holmberg (1970) reported that it is the impulsiveness component of E/I which is higher in criminals and not the sociability part. The personality inventory PEN has a definite saturation of the sociability items in the E/I scale ; the differences might have been greater had there been more items to measure the impulsivity. So we find that our earlier expectations regarding the Personality and Adjustment of Criminals have been fulfilled.

SUMMARY

The phenomenon of crime was studied from the psychological angle of adjustment and personality in terms of Psychoticism, Extraversion and Neuroticism.. 160 criminal and 100 non-criminal males were selected randomly and administered Bell's Adjustment and PEN inventory. The results showed significant differences between the scores of criminals and non-criminals on home, health, occupation, social and emotional adjustment as well as on P and N. The criminals were more psychotic and showed lesser adjustment and their Adjustment showed an inverse relationship with their personality scores.

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A Study of Creativity as Function of Adjustment, Frustration and Level of Aspiration

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The present investigation was an attempt to study the effects of adjustment, frustration and level of aspiration and their interactional operation on creativity. A 3 × 3 × 3 factorial design was used to make analysis of variance. Only 135 subjects were considered out of 600 randomly selected High School students. The results indicate that creativity is not affected either by the existence of adjustment, frustration and level of aspiration or by their interactional operations.

INTRODUCTION

Creativity has become a chief Psycho-social motive of the Twentieth Century. It is mankind's greatest asset and vital to the shaping of man's future. Therefore, shocking neglect of creative individuals has become a cause for concern all over the world and has promoted sophisticated research on creativity. Now, it has become the most meaningful but extremely complex area of research. An intensive survey of the related literature revealed that a number of investigators had found adjustment, frustration and level of aspiration as potential correlates of creativity. Terman (1925), Shannon (1947), Roe (1953), Mackinnon (1962), Parloff and Datta (1965), Hinton (1966), Ray Chaudhury (1966) Turner (1976), Foster (1968), Mishra (1969), Nair (1975), Forst (1976). Dharmangadan (1976), Mallappa and Upadhyay (1977), Sinha and Sharma (1978) and Singh and Singh 1979) etc. had studied adjustment, frustration and level of aspiration as correlates of creativity. The inconsistent and inconclusive results of their studies necessitated further research to explore the effect of these variables on creativity.

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OBJECTIVES

1. To study creativity as function of adjustment, frustration and level of aspiration
2. To study the effects of interaction between adjustustment × frustration × level of aspiration, frustration × level of aspiration and also among adjustment × frustration × level of aspiration on creativity.

HYPOTHESES

1. Adjustment, frustration and level of aspiration do not significantly effect creativity.

2. The effects of interaction between adjustment × frustration, adjustment × level of aspiration. frustration × level of aspiration and also among adjustment × frustration × level of aspiration do not significantly effect creativity.

PROCEDURE

(i) Sample : A 3 × 3 × 3 factorial design was used to select 135 subjects out of 600 randomly selected High School students of Scientific and Literary groups. The subjects were divided into nine groups : high, moderate and low on all the three variables. Only 5 subjects from each group *i. e.* 45 for each variable were considered for the analysis of variance.

(ii) Tools : The following standardized tools were used :—

1. Verbal Test of Creative Thinking by Baqer Mehdi.
2. Adjustment Inventory by Sinha and Singh,
3. Frustration Test by Chauhan and Tiwari.
4. Level of Aspiration Test by Shah and Bhargava.

RESULTS AND DISCUSSION

Results of the present study are summarized below :

It is evident from the above results that all the F values are non-significant. It means that none of these variables *i. e.* adjustment, frustration and level of aspiration significantly affects creativity. They tend to have no effect on it.

These results also indicate that interactions between adjustment × frustration, adjustment × level of aspiration, frustration × level of aspiration and also among adjustment × frustration × level of aspiration are not significant. Their interactional operations tend to have no effect on creativity.

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ANOVA

Source	*S.S.*	*df*	*M.Sq.*	F
Treatment	15863.73	26		
Adjustment	1996.362	2	998.131	1.42
Frustration	634.806	2	317.403	0.453
Level of Aspiration	845.20	2	422.60	0.60
Adjustment × Frustration	3531.20	4	882.80	1.26
Adjustment × Level of Aspiration	5001.60	4	1250.80	1.78
Frustration × Level of Aspiration	1308.94	4	327.235	0.46
Adjustment × Frustration × Level of Aspiration	2545·632	8	318.204	0.45
Error	75589.20	108	699.90	
Total	91452.92	134		

Level of Significance .05

None of the values of F is significant.

On the basis of above results and discussion, it may be concluded that creativity is neither affected by the existence of adjustment, frustration and level of aspiration nor by their interactional operations. Hence, the hypotheses seem to be tenable.

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Study Habit, Adjustment and Anxiety Among Scheduled and Non-Scheduled Caste Students

S. L. Manwani, A. K. Srivastava, V. Saxena
and V. B. L. Saxena

It has been generally observed that scheduled caste students, inspite of relaxtions and various facilities provided by the Govt., do not show high academic achievement, even when they are of normal I. Q. Reasons can be their poor study habits, adjustment and high lable of anxiety. The sample of the study consists of 36 S. C. Students. An equal number of non-scheduled caste students were also selected from the same institution for comparison.

Results indicate that S. C. Students have poor study habits, adjustment and high level of anxiety in comparison to non-Scheduled caste students. Possible interpretations of the finding are discussed.

INTRODUCTION

The Government and social welfare agencies have done considerable work, to improve the conditions of scheduled and backward castes since independence. Even than, they are still academ cally, socially and economically backward. It is obvious facilities, do not show good academic achievement, which can be due to different reasons.

Robinson (1945) emphasized the importance of individual adjustment in the development of effective study habits. Jackson (1949) hypothesized that, even in the fields of reading skills, and study skills. Factors of motivation and personality structure were on whole, considerable more significant than the difficulties in mechanical procedure. Valdina (195.) also suggested the importance of emotional factors in studying worry and anger might prevent student from studying. Tressert (1951) find correlation between study habits

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and personality adjustment. In a study of Glodstein (1960), it is suggested that students should be encouraged to develop study habits suitable to their personalities rather than attempting to force them into the muld of good study habits.

Rehins *et al* (1963) have emphasized the role of environmental advantages and disadvantages in academic performance of the student. Jamuar (1973) & Singh (1978) have observed that, student belonging to higher socio-economic level had better study habits than those of the lower socio-economic level, as they could get better facilities for home studies.

In the present study, an attempt has been made to investigate the study habits, personality adjustment and level of anxiety in relation to academic achievement of scheduled casts and non-scheduled casts students.

Material and Method

The simple of this study consist of 36 S. C. students of post graduate college of Kanpur University. An equal number of N. S. C. students after matching on I. Q. and S. E. S. were also selected from the same institution for comparison. All the students of both groups were hostalers.

The following three tests, Patel's Study Habits inventory, Sinha's Anxiety Scale and Sinha's Adjustment Inventery were administered on all the students. The data obtained has been analysised statistically and is presented in table No. 1. and 2.

RESULTS

On comparison of social background variables of the two groups of students a few but expected and significant differences were observed. The S. C. students were comparitively higher in age, poorer in academic performance (63% of S. C. students scored below 50% of marks, as against 20% of N. S. C. students.) The parents of N. S. C. students had higher education level in comparison to the parents of S. C. students and approximately 90% parents and of S. C. students had their occupation of routined nature, as against 20% parents of N.S.C. students. The most interesting differented observed was that, all the S.C. students were married. while no one was married among the N. S. C. students.

TABLE—1

Showing differences between S. C. and N. S C. students on study habit, Adjustment and Anxiety.

	Mean (S.C. Students)	Mean (N.S.C. Students)	D	C.R.
Study habit	164,57	172.43	2.78	3.08***
Adjustment	34.57	26.00	3.45	4.18***
Anxiety	35.14	20.72	4.53	1.96**

***P* Significant at .01 **P* Significant at .05

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It is obtained that N.S.C. students have scored higher on study habit inventery. On adjustment, S. C. students have scored higher than students of N.S.C. Test of anxiety scale reveals higher score of S. C. Students.

TABLE 2

Showing comparison between S.C. and N.S.C. students on Home, Health, Social Emotional and Educational Adujustment.

	Home	*Health*	*Social*	*Emotional*	*Educational*
	M 5.63	3.40	7.74	8.80	8.43
S.C.					
	S.D. 2.75	2.63	2.46	5.22	4.39
	M 3.34	3.00	5.97	6.26	6.40
N.S.C.					
	S.D. 1.97	2.25	3.55	3.68	3.33
	M 0.57	0.59	0.72	1.08	0.93
C.R.	4.02***	0.67*	2.46**	2.35**	2.18

*Not Signicafint, **Significant at 0.05 level ***Signsficant at 0.01 level.

Taking different aspect of adjustment, it is revealed that, mean of S.C. students is more than N.S.C. Students. S.C. students have scored 5.36, 3.40, 7.74, 8.80, and 8.43 on home, health, social, emotional and educational adjustment respectively, but N.S.C. students have scored comparitively lower as is evident from table No-2 given aboves.

DISCUSSION

S. C students have got comparitively poorer study-habits which may be an important factor, of their poor academic achievement. It may also be the result of lack of poorer motivation for good performance. S. C. students do not feel, to compete with others as they depend on reserved and prescribe quota by the government for them. The another factor for lack of motivation may be home environment, specifically, parents education and occupation. S. C. students being married alse bear the responsibility of their own family, as such can not devote good time in studies. N. S. C. are comparatively good on study habits for there better social background factors.

Regarding the total adjustment of S. C. students, it is obtained, that they are significantly less adjusted than NSC students. This may also be one of the factor putting hinderance in the formation of good study-habits. Any individual, who is not adjusted well, will not be in a position to form good study-habits, which needs attention, concentration and tension free mind.

This is also found that there is significant differences between S. C. and N. S. C. students on anxiety. This is self explainetory that, a person with high amount of anxiety can not concentrate on any subject. Consequently a better study-habit may not be formed.

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The analysis of different aspect of adjustment (Table-2) suggest, that S. C. students are significantly different on the scores for home adjustment, social adjustment, emotional adjustment and educational adjustment. It seems that S. C. students are not having proper and stimulating environment in their home. Socially they are also found to be less adjusted. Adjustment in education also seems to be poor. All these problems have given rise to emotional problem in the S. C. students which might have effected their concentration for studies. It is obvious that, a person who is not well adjusted, specially in his emotional life, his performance for all these task, which require attention and concentration, will be poor.

It can be concluded that, the poor adjustment and high level of anxiety in S. C. students may be responsible for their poor study-habit and academic performance, It can be suggested that for the betterment of the S. C. students certain schems may be introduced by Government and other social agencies for looking into the problems responsible for their poor adjustment. But before planning out any remedial programme, such studies may be carried out on a large sample and with all the possible variables taking into consideration.

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INDIAN PSYCHOLOGICAL RFAIEW
1981, VOL. 20 NO. 4, PAGE 47–54

The Value of Children

Y. Singh, M. Bhargava and Kuldeep Kumar ,
St. Jahn's College, AGRA

Conceptul Framework (YOC) For the first time in the history of world, the question has come up, as to why we want children ? But the question is not out of context, since the world in general and developing countries like ours specially have "population explosion" or the unprecedented population growth in the history of mankind.

The Biological

In Psychoanalytic literature, there is some evidence that man like other animals, is innately attracted to the quality of "babyishness."

If the young and adults of several species are compared for differences in bodily and facial features, it will be seen readily that the nature of the differences is apparently the same almost throughout the phylogenetic scale. Limbs are shorter and much heavier in proportion to the torso in babies than in adults. Also, the head is proportionately much larger in relation to the body than is the case with adults. This seems to indicate that biological rooted releaser of babyishness may have promoted infant care in primitive man before societies were ever formed, just as it appears to do in many animals species. Thus this releaser may have a high survival value for the species of man.

The Cultural

Everywhere social pressures enforce a certain conformity to the approved childbearing pattern, whether large *numbers of children in Africa or small* numbers in Eastern Europe. People want children because that is "the thing to do"-culturally sanctioden and institutionally supported, hence about as "natural" as any social behaviour can be.

Such social expectations, expressed by every toward everyone, are extremely strong in influencing behaviour even on such an important element in life as childbearing and whether the outcome is two children or six.

---

1. Dr. Yashvir Singh. St. John's College, Agra ; Dr. Mahesh Bhargva, N. P. C., Agra and Kuldeep Kumar, Research Scholar, Agra.

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The Political

The cultural shades off into political considerations : reprodnction for the purpose of a higher authority, In a way, the human responsibilty to perpetuate the species is the grandest such expression-the human family pitted politically against Fauna and Flora—and there may always be people who partly rationalize their own child-bearing as a contribution to that lofty end. Beneath that, howeve, there are political units for whom collective childbearing is or has been explicitely encouraged as a "demographic duty". Countries concerned with national glory or competitive political postions, goverments concerned with the supply of workers and soldiers, churches concerned with propogative of the Faith or their relative of the Faith or their relative strength ethnic minorities concerned with their political power, linguistic communties copeting for position, clans and tribes over their relative status within a larger setting.

The Economical

As the "new home economics" is reminding us in its current attention to the micro-economics of fertility, children are economically valuable. Not that would come as a surprise to the poor peasant who consiously acts on the premise, but it is clear that some people want children or not for economic reasons.

The economics of the case carries through on the negative side as well it is not publicly comfortable to think of children as another consumer durable but sometimes that is precisely the way parents do think of them, before conception : another child or a trip to Europe, a birth differed in favour of a new car, then the child requiring more expenditure on education or housing.

The Familal

In some societies people want children for what might be called Familial reasons : to extend the family line or the family name, to propitiate the ancestors, to enable the proper functioning of religious rituals involving the family (e. g, the Hindu son needed to light the Father's Funeral pyre, the Jewish son needed to say Kaddish for the dead father).

Beyond all that is the profound significance of children to the very institution of the family itself. To many people husband and wife alone do not seem a proper family they need children to enrich the circle, to validate its family character, togather the redemptive inuflence of offspring Children need the family, but the family seems also to need children as the social institution uniquely available, at least in principle, for security, comfort, assurance, and direction in a changing, often hostile world.

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The Personal

Now we come to a variety of reasons for wanting children that are supposed to bring direct personal benefits.

(i) Personal Power

As stated, having children sometimes gives one parent power over the other. More than that, it gives the parent power over the child (ren)-in many cases. perhaps most as much effective power as they will ever have the opportunity of exercising on an indiviual basis. They are looked upto by the child (ren) literally and figuratively, and rarely done that happen otherwise. Beyond that, having children is involved in a wider circle of power.

(ii) Personal Competence

Becoming a parent demonstrate competence is an essential human role. Men or women who are closed off from other demonstrations of competence, through lack of talent or educational opportunity or social status, still have this central one.

(iii) Personal Status

Everywhere parenthood confers status. It is an accomplishment open to all, or virtually all, and realized by the overwhelming majority of adult human kind.

Childbearing is one of the few ways in which the poor can compete with the rich. Life cannot make the poor man prosperous in material goods and services but it can easily make him "rich with children".

Personal Pleasure

Last, but one hopes not least, in the list of reasons for wanting children is the altruistic pleasure of having them, caring them, watching them grow, shaping them, being with them, enjoying them. This reasons comes last on the list on the list but it is typically the first one mentioned to the casual inquiry : "because I like children".

There are in short, many reasons for wanting children. Taken together, they must be among the most compelling motivations in human behaviour.

History

What of the broad, historical friends in the evaluation of children ? The central trend can be embodied in a contirnum : over the long run, as children have become less valuable they have become more valued. That is, as children have lost their economic value to the parents, under the impact of modernization, they have gained value in a qualitative sense in the provision of health and particularly education and training.

In the classical literature of Greece and Rome there appears to be little serious reference to children and childbearing except for the continuation of royal lines. According to George Boas, in the Cult of Childhood, the "ancients had a low opinion of children if they appraised them at all". According to Philippe Aries in "Centuries of childhood," "in medival society the ideal of childhood did not exist" ; only in the Eighteenth Century

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are "not only the child's but his presence and his very existence...of concern : the child has taken a central place in the family." And according to Peter Coveney in Poor Monkey : The child in literature, the emergence of the child is sharply visible in English literature.

Over the succeeding century, one can identify a rough progression from the innocent child of Wordsworth through the child employed for the social criticism of industrial institutions in Dickens, through the sentimentalized and redemptive child of Silas Marner and Worse, to the realistic child (and family) of Butler and Lawrence.

Man has come a long way in a short time in his evaluation of children : From non-appreciation of childhood, throgh innoccent primitive and social cause, to obsession and problems.

In the end, we may need to rely on those old standbys, rationality and responsibility not everyone is equally talented to be a parent anymore than a planist or a mathematican or a tennis player, through the parental talent may not be as rare as those ; and concern is owed the development possibilities for the individual child beyond the parental or social gratification. If a society has full information on personal and collective consequences of childbearing, full opportunity to control fertility and thus divorce reproduction from sexuality, productive alternatives for women, no undue social pressures with regard to marriage or parenthood, and genuine concern for the produced child, that is about the best we can do.

The currency is not debased, though modern conditions affect both numbers and values. For whatevar else it is, wanting chilren remains a re-start for man, and for individual men, another chance to try for "the good life", a revitalization in both the literal and the symbolic sense. On the title page of "Silas Marner", George Eliot quoted these lines from Wordsworth.

A child, more than all other gifts.
That earth can offer to declining man.
Brings hope with it, and forward looking thoughts.

Psychological Studies in Evaluation of Child

Among the psychological determinannts of KAP fertility, motivation holds an important place. Closely associated with it and often used inter-changeably, the term value is also another determinant of fertility regulation. The term value has been used in fertility surveys to denote shades of meanings such as dominnat interest (Spranger, E., & Allport C. W., *et. al.* 1951) and also as personal values for child bearing (Arnold Fred and Fawcett, J. T., 1975). (Arnold Fred *et al* 1976) ; The population council USA (1973) ; Bulato Rodolf, A., (1975) Fawcett, J. T. (1972), Kahl Joseph, A. (1967), Clifford, W (1971) ; Hoffman. (1973) and motivation for child-bearing by May, David A. and David M. Heer (1968) ; Mead Robert D. and Labh Singh (1973), Poffenberger Thomas (1968), Rabin, A. I. and Green, R. J. (1965) ; Smith, M. Brewester (1965), Bogue, D. J. (1967) etc.

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Psychologists, however, have only recently begun to make empirical studies of population problems such as fertility motives ; earlier involvement with childbearing motives was exclusively within the framework of Psychoanalysis (Freud, 1433).

Pohlman (1969) has presented a review of empirical psychological studies that are available and summarizes both the numbers of children desired and the expressed motives for wanting to produce them.

In a survey conducted by the first author (Yashvir Singh, 1976) on 819 couples of Agra district, drawn from among the eligible couples through area probability sampling technique, eight correlates were analysed for having smaller family norms.

And also by using Hindi version of the scale for assessing value to childrens Arnold Fred of Population council USA (1976). Present inventory measured nine values for wanting children, given below :

1. Economic
2. Social
3. Familial
4. Culture
5. Political
6. Religious
7. Power or dominance
8. Sex & Love
9. Marital adjustment.

TABLE 1

THE CORRELATES AND CO-EFFICIENT OF CONTINGENCY (C-VALUES) FOR HAVING SMALL FAMILIES

	Correlate	*c-Value*	*Level of Significancy*	
1.	Urban Residence	.256	.001	High Association
2.	Literacy	.254	.001	
3.	Per month Income	.199	.001	
4.	Occupation	.174	.001	Moderate Association
5.	Age Below 30 years	.147	.001	
6.	Religions Affililiation	.138	.001	Low
7.	Number of children in/their family	.130	.001	Association
8.	Sex of respondent	.040	N.S.	

Among the eight correlates studied (Table 1) urban residence and literacy have high associations for having smaller families. This has also been observed in many studies in India *i. e.* G. B. Simmons (1971), Panda, K. C. (1967), Dandekar, V. M. and Dandekar, K. (1953), Sengupta, A. (1966), Indian Institute of Public. Opinion (1958). But on the other hand there are studies which contradictions to this findings such as by Pathe-vasant, K. (n. d.). Das, Gupta ; Some, R. K., Majumdar & Mitra, S. K. (n. d.) Anadd ; K. (1966).

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Studies conducted by Simmons, G. B. (1971), Agrawala, S. N. (1960); Morrison, W. A. (1956, 1967); Parsad, Laxman (1956); Wyod, J. B. and Grodon, J. E. (1959); Chandrasekhar (1959), R. K. and Sengupta, S. (1969); Singh Baljeet (n. d.); Chandrasekaran, C. & Sinha, Archana (1962); N. S. S. 16th round (1963); Mandagere and Rukmani, S. P. (1963) : Samparia, Shanti Lal (1964), Owaissy, M. A. (1965); Panda. K.C. (1967) and Mohanty, S. P. (1966) etc. found that literacy has high association with small family size.

Correlates like higher per month income service profession and age below 30 years are moderately associated with small family size (or the value of having small family sizes).

TABLE 2

VALUE OF CHILDREN SCALE SCORES (STEN SCORES)

Groups	Economics	Social	Familial	Cultural	Political	Religious	Power/ Dominance	Sex & Love	Maritial adjustment
Small Family Size Group. (N=441)	5.22	7.22	5.55	6.59	5.27	5.73	5.25	5.41	6.45
Large Family Size Group.	6.64	2.92	4.84	4.84	6.20	5.02	6.64	6.41	4.84

D=2=30.82 ; *rp* (all 9 values)=.31

The value profile similarity coefficient (*rp*) for all the nine VOC shows that *rp* value of .31 is not significant at any level or the two groups, group 1 (3 or less children) which has small family size and group 2 of large family size (more than 3 children). One important thing which is revealed by this study is that whose who hold high social cultural and Marital adjustment value of children have small family sizes, while those holding high economic, political, power/dominance and sex & love value large family sizes.

In the end, we must say that now the qualily of children and qualitative valuation of child is needed rather than quantitative valuation due to fast population growth, limited sources leading to high competition in almost all developing countries.

Small family size taken as consisting a family of 3 or less children.

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Simultaneous-Successive Processing and Motivational differences among Low and High Achievers

K. Jachuck, C. Misra and N. Mallick
Utkal University, Bhubaneshar.

INTRODUCTION

Begining with the Binet's original attempt, the argument regarding how best to predict success in school has continued .The concept of general ability has been considered as the best predictor by some Psychologists (e.g., McNemar, 1964), But as Das (1974) has pointed out the general ability measured by IQ Score gives us no clue as to how this general ability is Manifested in school performance. We do not know why intelligence predicts achievement. Therefore, we do not know what to do when low achievement is predicted.

Hence, there has been a shift of interest from the traditional global view of intelligence to the study of individual variation in the manner in which children characteristically approach cognitive problems. Investigators like Vernon (1960), Cattell (1971), Jensen (1970) have opined that individual and group variations can be better interpreted in rms of 'cognitive style' or ability structure. These theorists have also considered the impact of transfer of learning upon development of ablities. Recently Luria (1971) has proposed a new approach which can be characterised as information process approach to cognitive functioning. Luria is not concerned with intellectual performance in terms of IQ. His model suggests that there are two basic forms of integrative activity of the carebrail cortex, which he terms simultaneous and successive synthesi In simultaneous synthesis one is required to arrange the stimuli in a simultaneous manner in order to arrive at a judgement. In successive processing stimuli must be arranged in a sequence to make as decision. Luria has proposed these two constructs as stable individual difference variables. Das (1972) has expanded Luria's process approach to account for variation in intellectual competence. Basing on his factor–analytic studies Das maintained that a process approach does not deny the existence of abilities but rather it provides for a more useful model for understanding and improvement of cognitive competence. He found eveidence of procesing

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differences at various developmental stages. Evidences in support of Das's model have also been obtained in other studies. Krywaniuk (1974) studied processing differences among high and low achievers in the third grade and found that the high achieving group was superior to low on all the simultaneous-successive Tests particularly those of simultaneous processing. Das & Kirby (1975) found that complex performances (such as reading achievement) are dependent upon both modes of processing. In view of these findings, the parallel-sequential process distinction appears to be a fruitful approach to study individual variation in achievement. However, since, most of these studies have been undertaken in western countries and Das has found evidence of cultural pressure in modifying individual preferences for either mode, it seems desirable to examine Das's model before any viable programme of education is undertaken. Therefore, the present study attempts to study processing differences among a group of low and high achieving Indian boys.

Method :

Subjects : The sample consisted of 56 children divided into two groups on the basis of their achievement scores. Initially a sample of 200 boys and girls belonging to class IV were selected from the primary schools of Bhubaneswar, Orissa. All of them were administered three achievement tests, on arithmatic, science, and language. From the distribution of the achievement scores on three tests, two extreme groups (high and low) were chosen. High and low achievers were defined respectively as those students who fell in the upper and lower thirds of the distribution of achievement scores. In each group 28 *Ss* were taken.

Tests : The test battery consisted of tasks suitable to evaluate problem solving strategies represented by Das's successive and simultaneous processing model.

Tests of Simultaneous and Successive Synthesis :

(a) Raven's Coloured Progressive Matrices : This is a well known test involving the matching of a coloured matrix, on which there is a configuration of symbols, with its counterpart in a set of alternatives. This test was developed by Raven in 1938. The test is generally thought to be a relatively pure culture reduced measure of reasoning. The total score on the test is the number of items correct, with a possible maximum of 36.

(b) Figure Copying Test : The figure copying test was developed by the Gessell Institute (Ilg and Ames, 1964) and has been used as a measure of Intellectual ability. The test consists of 10 geometrical figures, which are presented consecutively to the subject for reproduction while they are in full view. A maximum score of two is possible for each item, with a test total of 20. It seems that the test involves no memory factor since the figure to be copied is before the child at all times.

(c) Clustering & Free Recall Test : The test consists of a set of 20 pictures of a familar objects representing four catagories : animals, fruits, parts of bodies and vehicles. The pictures are presented sequentially at approximately 2 second rate and the subject names the items as they are paesented. Immediately following the presentation of all the 20 pictures, the subject is given one minute io recall the names of all the pictures he was

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shown. The recall of the subject is recorded serially. This test was originally developed by Bousfield (1953) to test the organization capacity (clustering) of the individual. It is generally found that the words are recalled as 'cluster' corresponding to categories.

(d) Digit Span Test : The test for forward Digit span (DS-FWD) and backward Digit span (DS-BWD) are supplementary sub scales from the Wechsler Intelligence scale for children (Wechsler, 1949). In Ds-FWD the Tester reads aloud series of three to nine digits, paced at one second per digit and the child is asked to repeat the series.

Two trials are given for each series repeated correctly. DS-BWD series range from two to eight digits, which the subject must repeat in reverse order and is scored in the same manner. The test primarily measures immediate memory of the subject.

Procedure : Testing was conducted at the schools where the participating children attended. Each child was tested over three half-hour sessions and the sequence of administration was the same for all children. All the tests were given individually.

RESULTS

The mean scores for the tests of simultaneous processing revealed a difference in performance in favour of high achievers. The mean differences in R. P. M. Figure copying and clustering were 3.46, 1.57, 0.02 respectively. However, these mean difference could not reach the expected level of statistical significance. (Table 1).

Table-1

Mean, Standard Deviations and *t*-values for simultaneous tasks : Low and High achievers respectively.

Test	Groups	Mean	S.D.	*t*	P
R. P. M.	Low-achievers	15.96	5.88	1.97	N.S
	High-vchievers	19.42	7.18		
Figure Copying	Low-achievers	17.85	4.34	1.65	N.S
	High-achievers	19.42	2.51		
Clustering	Low-achievers	1.54	1.11	0.06	N.S.
	High-achievers	1.56	1.26		

In test of successive processing high achievers did better than low achievers in free recall tests. The mean difference was 1.65. *t*-test showed this difference not to be significant. But in Digit span test the performance of the high achievhrs was significantly better than that of the low achievers (Table II). The mean scores for low and high achievers 8.18 and 8.89 respectively. The mean difference was found to be .71, *t*-test showed the mean difference to be signigicant at .05 level.

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Table-II

Mean, Standard Daviation and *t* values for successive tasks of Low and High achievers respectively.

Test	Groups	Mean	S.D	*t*	*P*
Digit Span	Low-achievers	8.18	1.36	2.03	< .05
	High-achievers	8.89	1.25		
Free recall	Low-achievers	10.85	3.31	1.70	N.S
	High-achievers	12.50	3.93		

Thus in all the tests of simultaneous and successive processing except Digit span test, low and high achievers did not differ in their performance. A test of immediate memory like digit span is dependent on the subject's attention and motivational characteristics (Fllies 1941).

Jensen (1974) has also emphasised on motivational characteristics, particularly test-taking motivation as one of the factors contributing to individual differences in performance on ability test. To examine whether there is a real differene in test-taking motivation between the low and high achieving groups, Jensen's speed and persistence test (Making X) was adminstered. The mean scores for low and high achievers were 30.21 and 36.00 respectively. The mean difference was 5.79. *t* test showed the mean difference to be significant at .05 level.

Table III

Table -Mean, Standard deviation and *t*- value for Marking Xs Test : Low and High achievers respectively

Test	Groups	Mean	S.D	*t*	P
X'sTest	Low-achievers	30.21	8.73	2.367	< .05
	High-achivevers	36.00	9.56		

Discussion

Following simultaneous and successive processing model it was expected that there would be proceasing differences among low and high achievers. The mean test scores, *t* tests for each of the test of simultaneous and successive processing did not reveal any such difference except only in digit-span test. It seems in Indian culture variations in achievement is not due to differences in the manner in which information are processed.

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Das, himself has admitted that cultural pressure can and do modify the way in which informations are processed. Thus it appears that both the simultaneous and successive processing have been emphasized in out cultural set up for which the low and high achievers did equally well.

However, the mean scores of the digit span test indicated the possibility of attentional and motivational problems of low achievers. The mean difference was found to be significant at .05 level. Subsequent test of motivation (Making Xs test) gave a clear support to this interpretation. Similar findings on Indian samples have been obtained by other investigators (Roy 1974, Sinha, 1968 and Srivastava, 1974). Among the characteristics found to be associated with high or low academic achievement, the presence or absence of the drive to excel-the drive to do well relative it some standard or excellence in one of the most important ones. This is the concept of achievement motivation. Rai (1974) found n-achievement as a prerequisite for high achievment as it drove the students to academic activities. Menon (1973) in this study found high achieving groups of boys and girls showed greater academic interests, endurance and persistence. The results obtained in this study do corrorroborates with these findings. Hence, it seems worthwhile to look into the motivation problems of low achievers The Socio-economic and demographic characteristics might contribute to such motivational differences. Obviously, children coming from lower Socio-economic status get very little encouragement from their parents to excell in class. Hence, low achievement is expected from these students. Further studies are necessary to examine the exact relationship between one's socioeconomic status, drive level and academic achievement.

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Study of Certain Moral Functions in Relation to Some Demographic Factors

Radhey Shyam Singh*
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The Moral Judgment Test (Varma and Sinha, 1971) was administered to a group of 120 children within the age range of 10 to 11 years and studying in the fifth grade of urban and rural schools of Gorakhpur and Deoria districts of U.P. It was hypothesized that the six components of moral judgment—moral decision, moral selectton, moral comparison, moral reasoning and moral definition-as measured by the six parts of the test would be differentially affected by such demograchic factors as sex, residential area (urban/rural) and type of school (i e. school run by local bodies or privately managed). A 2×2×2 factorial design was used. The results of analysis of variance proved hypothesis. The most effective demographic factor was found to be the type of school. Sex as a main factor was found to be completely inaffective, while area appeared to have a causal relationship with moral reasoning and moral definition. The results have been discussed in terms of the differences in the familial background of children studying in the two types of schools as also with reference to the differing experimential background of urban and rural children.

INTRODUCTION

Morality has been defined variously—as conformity to the moral code of the social group; as the internalization of virtues, ideas and values sanctioned by the society ; and as the sum total of an individuals way of behaving which is judged in terms of ethical rightness and wrongness. Generally, Psychologists have conceptualized morality in terms

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of three components : (i) conduct or behaviour tnat may be designated as moral, immoral or amoral according to the prevailing social standards; (ii) conscience, that is, the affective or evaluative aspect of morality which has reference to the persons awareness of the goodness or blame worthiness of his conduct and intentions; and (iii) moral judgment, that is, the cognitive aspect of morality that involves ideas or conceptions regarding what is morally right or wrong.

The last aspect of morality—moral judgment—refers to an individual's congnitive capacity to define a situation in terms of rights and obligations. Varma and Sinha (1968; 1972) have defined moral judgment as, "the cognitive capacity to perceive the relationship between an atbstract principle and an actual behaviour and to judge the behaviour as right or wrong, good or bad".

As compared to the other two aspects of morality, moral judgment has been more throughly investigated. Perhaps the most influencial psychologist in this area of study has been jean Piaget (1928; 1932) who studied children's moral judgment toward intentional and unintentional wrong, doing and enumerated six tgpes of moral judgment. He summerized his findings in terms of two moral stages, first, the heteronmous stage which develops from the age of 4 years to about 8 years, and the second, the autonomous stage which develops after 8 years of age. Another psychologists who has made valueble contributions to the understanding of moral judgment has been Kohlberg (1964) who asked children to judge the morality of conduct as described in stories.

Very few studies have been made in India to trace the course of moral development (Bhat, 1966; Mathur, 1960, Sinha and Varma, 1968; Pannickkar and Visvesvaran, 1972; and Looma; 1967). A study that is of particular interest with respect to moral judgment is one made by Meera Varma (1968). She has developed a test of moral judgment on the lines of an intelligence test with items having moral cannotations. She enumerated fourteen cardinal values prevalent in Indian Culture as-'Ahinsa', 'Duty', 'Respect', 'Betrayal of faith', Purity', 'Forgiveness' 'Greed', 'Anger', 'Punnya' (Virtue), 'Lie, 'Revenge, 'Stealing' ,'Truth' and 'Sin'. The test has six parts and sum total all the six parts is taken to be the moral judgment score of an individual. Generally, studies employing this test have correlated this total score with variables such as age, grade, sex, residential area, type of school etc. It can be conjectured that the six parts of the test represent six mutually different component of moral judgment and it appears to be worthwhile to study each component separately in relation to other variables. The present study is an attempt to accomplish this aim.

METHOD

The Sample :

The sample for the present study consisted of 120 children (age range 10.11 years) selected from the fifth grade of urban and rural schools sitvated in Gorakhpur and Deoria districts of U.P. The number of urban and rural children in the sample was equal *i.e.*

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60 urban and 60 rural children. Both types of children were drawn from two types of schools, that is, schools run by local bodies such as municipal board and district board, and schools managed by private agencies such as Missionaries and other similar bodies. Thirty children were selected from each type school. The number of boys and girls were kept equal in each sample. The sample was thus according to a $2 \times 2 \times 2$ factorial design with 15 cases in each cell.

The Tool and Collection of Data :

The Moral Judment Test constructed and standardized by Varma and Sinha (1971) was seleced for the present study. This test has six parts, viz., discrimination, incomplete sentences, analogies, best moral answer, moral reasoning, and definition. The test was admiquistened to the boysand giris of urban and rural schools as spcified earlier.

Analysis of Da ta and Results

Each part of the test presumably tapped a separate component of moral judgment. The first part consisting of items for discrimination required moral decision, the second part with incomplete sentences involved the function given the name moral groupng or selection; the third part having analogies required moral decision ; the fourth part requiring best moral answer in a sense dealt with moral evaluation; the fifth and sixth part obviously tested the capacities for moral reasoning and moral definition, respectively.

In order to summarize the data for each moral function, the scores were tabulated according to sex, area and nature of school. To test the significance of difference between the mean scores of various groups for each moral function, a three-way analysis of variance was made with a view to ascertaining the main factor effects as well as interactional shown in Table 1 and 2

Table 1

Summary of Analysis of Variance for Moral Decision (MD), Moral Selection (MS) and Moral Comparison (MC) scores.

Sources of Variance	Sum of Squares			df	F		
	MD	MS	MC		MD	MS	MC
Sex (Row)	11	0	0	1	3.55	0	0
School (Column)	138	301	152	1	42.07**	41.92**	62.04**
Area (Layers)	0	1	4	1	0	13	1.63
RxC	17	0	5	1	5.18*	0	2.04
RxL	17	8	5	1	5.18*	1.11	2.04
CxL	17	94	48	1	5.18*	13.01**	19.39**
RxCxL	38	187	2	1	11.58*	26.04**	.81
Within cells	367	805	275	112			
Total	605	1396	491	119			

* Significant at .05 level.
** Significant at ;01 level.

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Table 2

Summary of Analysis of Variance for Moral Evaluation (ME), Moral Reasoning (MR) and Moral Definition (M Def) Scores.

Source of Variance	Sum of Squares			df	F		
	ME	MR	MD ef		ME	MR	MD ef.
Sex (Row)	0	2	1	1	0	1.36	3.0
School (Column)	147	72	298	1	37.78**	49.31**	90.35**
Area (Layers)	5	9	90	1	1.28	6.16*	27.43**
RxC	3	4	10	1	0.77	2.73	3.04
RxL	7	5	119	1	1.79	3.42	36.28**
CxL	22	20	114	1	5.65*	13·69**	34.75
RxCxL	105	10	81	1	26.99**	6.84**	24.89**
Within cells	436	164	368	112			
Total	725	286	1081	119			

* Significant at .05 level

** Significant at .01 level.

DISCUSSION

Personal Variables (Sex, Area and School) and Moral Decision:

An observation of Table 1 reveals that there is no significant difference in the moral decision scores of boys and girls as well as urban and rural students. This means that sex or area does not relate to differences in the capacity for moral decision (F=3.35 and 0 respectively). The only effective main factor has been found to be the type of school. The F- ratio for this factor is 42.07 which is significant at .01 level.

As regards interactions, all the intractions (sex X school; sex X area ; school X area ; and sex X school X area) have significant effect on moral decision.

Personal Variables (Sex, Area and School) and Moral Selection :

Here too the F-ratios (Table 1) for sex and area have been found to be insignificant (F=0 and .13 respectively). The only significantly effective factor has been found to be the type of school (F=41.92;P .01).

The interactions that have been found to have significant effect are those between school and area, and sex, school, and area (F=13.01; and 26.04 respectively P .01). These results emphasize the all important role of the type of school in producing differences in capacity for moral selection.

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Personal Variables (Sex, Area and School) and Moral Comparison:

Once again the picture is not much differant from theone obtained in case of moral decision or moral selection. The F-ratios for these main factors have been found to be insignificant (Table 1) The only significant differences between the mean moral comparison scores has been obtained when Ss were dechotomized according to type of school (F=62.04; P ·01). The interaction between school and area only has been found to yield significant differences. Obviously the importance of nature of school is reaffi rmed.

Personal Variables (Sex, Area and School) and Moral Evaluation :

A perusal of Table 2 shows that sex and area do not cause differences in the mean scores for moral evaluation (F=0 and 1.28 respectively). The only significant F-value (F=37.78) has been obtained for differences between mean moral evaluation scores of private school students and students studying in schools run by local bodies. As regards interaction, the interaction between school and area as well as among sex, school and area have significant F-ratios (5.65 and 26.99 respectively).

Personal Variables (Area, Sex and School) and Moral Reasoning

In case of moral reasoning the picture is some what different from other moral functions described earlier. The analysis or variance in this case has shown that type of school and area both are significantly effective main factors (F=49.31, P .01 and F= 6.16: P .05 respectively). The effect of intraction between school and area and among sex, school and area have also been found to be significant. Sex has been demonstrated as an ineffective personal variable (Table 2).

Personal Variables (Area, Sex, and School) and Moral Definition :

As regards, moral definition the results are very much like those obtained for moral reasoning. Here too the analysis of variance has rusulted in significant F-ratios for school and area (90.35 and 27.43, respectively). The interactions between sex and area, school and area among sex, school and area have been found to be effective (Table 2).

In summary, then, it can be concluded that the single most important personal variable affecting all the six component functions of moral judgment is the type of school. As regards area, it does probably affect moral definition but has no relation with the remaining four functions. Finally, sex has to do with any of the six components of moral judgment. The important role of type of school is understandable if o ne pays attention to the status of families from which children come to join these schools. In general, more children from higher status families join school run by private bodies where the cost of education is higher than the schools run by muncipal board and district board. On the other hand, schools run by local bodies have a student population which comes mostly from lower status families. It has been acknowledged by many educationists and psychologists that school experiences play an important role in value formation. More than home, the school provides the students with a broader range of experiences in which values acquired at home either reinforced or challenged and shaken. The school serves as a testing ground where the child develops his sense of

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identity and learns to apply his own reason to the moral issueses that confront him. The difference between urban and rural children with regard to moral reasoning and definition can, probably be interpreted in terms of differential backgrounds. In urban setting children confront a wider range of moral situations because of increased chances for social interaction. It, therefore, can be argued that they develop better capacities for moral reasoning and moral definition. However this needs to be verified by further research.

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Interrelationship Between Job Anxiety And Absenteeism

R. K. Trivedi, A. K. Srivastava and Pramod Kumar[1]

The present study was conducted to investigate the relationship between job anxiety and absenteeism. 122 randomly selected male workers of Engineer's complex, Rae Bareli, which consists of sixteen small Units, severd as subjects of this study.

In order so measure the job anxiety of the workers a questionnaire entitled Job Anxiety Scale constructed by Dr. Pestonji, Prof. D. Sinha and A. K. Srivastava was used. Absenteeism was calculated from the record maintained by the Units.

Analysis of job anxiety oud absenteeism record of the workers suggested that there are positive relationoship between these two variables.

INTRODUCTICN

Adsenteeism is generally understood as the absence of workers during a time period that he is scheduled to work (Labour Investigation Report, 1964). Aukalikar defines it as 'unauthorized absence of worker from his job.' Absenteeism is temporay ceasstion of work for not less than whole working day, on the initiative of worker when his presence is expetcted (Hackett, 1929).

Absence of workers from industry or organization has a very adverse and disruptive effect. Apart from lessened productivity financial loss, absenteeism leads to dislocation of work and loss af discipline. It results in hiring substitute worker who have less skill, and who while working for daily wages do not care for discipline and welfare of the industry.

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Absenteeism is an important aspect of job satiafaction and industrial moral. Van Zelst and Kerr (1951) found significant correlation between absenteeism and job satisfacti-on. Kerr *et al* (1951) found a correlation of .51. Recently Sinha (1965) and Sinha and Sinha and Singh (1961) found similar results. Tiffin (1941) suggested use of absenteeism as a criterion for measurement of job satisfaction.

Importance of absenteeism in Indian context has been pointed out Rao (1950). He found a higher rate of absenteeism in our country than western countrbyes and rate was higher in north than south.

There are two indices fer meansuring absenteeism–one is frequency of absentee another is number of days. Conver and Smith (1951), Patchman (1960) and Metzener and Mann (1953) have found frequency of absentee as a better index of absenteeism because it is workers with several short absence whith requires investigation.

Job anxiety concerning indivldual's work and its ralated aspects. In the industrial commuuity anxiety can be divided into on-the-job and off-the-job anxiety. The anxiety which workers manifest cannot be thought of as related soley to job conditions, for men do not drop one set of anxiety at the gate when they report for work in the morning and pick up another set for the day. It is impossible to separate their on-the-job and off-the-job anxieties. However, there are certain conditions and aspects of job which are a continuous source of anxiety in an industry. Neel (1955) in his study related three inplant conditions to the employees feeling of worry about their work-supervisory practices, working conditions and time study practices.

Generally, all the job aspects seem to be anxiety producing at one time or another. The studies conducted in the area of absenteeism have focussed on the variable such as neuroticism and general adjustment of the worker. There studies do not throw any light on the relationship between absenteeism and job anxiety. On the basis of these findings only indirect inferences can be drawn regarding the nature of rclationship between job anxiety and absenteeism.

Absenteeism is a complex probelm being influenced by a number of factors, like age, income, numbers of dependents, education, organizational conditions, climate and other Community-Conditions.

Hypothhesis

1. Job anxiety bears a positive relationship with absenteeism.
2. High job anxiety leads to high absenteeism and low job anxiety to low absenteeism.

METHOD

1. *Sample* : The study was conducted in Engineer's complex, Rae Bareli, which consists of sixteen small Units. All the workers of the Units are male and most of them come from Urban area. On the basis of random sampling 150 workers were selected for the study. But finally 122 workers were available at the time of study.

2. *Materials* : For measuring the job anxiety of the workers a job anxiety scale

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developed by Dr. Pestonjee, D. Sinha and A. K. Srivastava was used. The scale consisted of 80 items. The areas of job anxiety covered by the scale are follow—

A. Security (10 items).
B. Approval, recognition and fair evaluation (10 items).
C. Interpersonal relationship and lack of co-operation (15 items).
D. Unjust crticism, punishment and reward (15 items).
E. Self-esteem (10 items).
F. Future prospects, chance of promotion and opportunity of to earn (10 items).
G. Capacity to work and shoulder responsibilities (10 items).

All the items were 'Yes' and 'No' type. Generally 'Yes' represented job anxiety, but in certain items 'No' was indicative of job anxiety.

ANALYSIS AND RESULTS

In order to determine the level of absenteeism of each worker, the attendencc record which was recorded by the Units in the year 1978 were 300. Percentage of the absenteeism for each worker was calculated. The range of the absenteeism was found to be 5.67 to 23.43 percent. The workers having an absenteeism 10 per cent were taken as low absenteeism, 10.1 to 16.9 per cent as average and 17 percent were taken as as high absenteeism.

Data were analyzed to see the relationship between job anxiety and absenteeism. For observing the relationship between the two variables, the product moment correlation was computed. The correlation obtained is 0.47 which is statistically significant at .01 level.

TABLE I

Showing Mean, and S.D. of job anxiety and absenteeism

	SCORES			
	N	Mean	Median	S.D.
Job Anxiety	122	23.77	20.40	10.23
Absenteeism	122	10.60	9.42	5.41

Table I, represent the mean, median and S.D. of the two variables *i.e.* job anxiety and absenteeism.

Absenteeism scores were classified into criterian groups viz. Low absenteeism, then a further analysis was done applying t-test and chi-square tests.

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TABLE II

Representing the difference between low absentee and high absentee on job anxiety scores.

Group	Scores on Job Anxiety			
	N	Mean	Median	S.D.
Low Absentee	30	20.16	21.03	5.50
High Absentee	27	30.30	31.87	4.40

t=7.91 df=55 significant at .01 level.

Table II shows the mean difference between low absentee and high absentee on the job anxiety scores. The t is 7.91 which is found to be significant at .01 level of confidence. This significant result corraborates our hypothesis.

TABLE III

Showing the distribution of low absentee and high absentees according to the level of job anxiety

Groups	JOB ANXIETY			
	Low	Moderate	High	Total
Low Absentee	13	16	1	30
High Absentee	1	4	22	27

Chi-Square=38.24 df=2 p .01

Table III show the distribution of low and high absentees according to different level of job anxiety. Chi-square test was applied to see whether the association is significant or not. Chi-Squate test yielded a significant value of 38.24, *P* .01.

DISCUSSION

The results obtained in the present study are in line of results obtained by Sinha (1956) and Russel and Frasee (1947). Sinha in his study of workers in a small lantern factory found fairly high degree of relationship (*rbs*=0.63) between absenteeism and scores on neurotic inventory. Similarly, Russel and Frasee (1947) in his study on the incidence of neurosis among factory workers made on a large sample of workers during war time in 13 British light and medium engineering firms observed that 10% of workers suffered from disabled neurotic illness and 1/5th from minor disorders. He also noted that neuroticism was responsible for almost a third of absences from work on

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account of illness. Although these investigations do not provide any direct support to the results obtained in the present study but they at least indicate that job anxiety being neurotic in nature must be essentially related with absenteeism.

Present study also seems to support the view point given by Grey (1952) who observed "those who are maladjusted stay away from work whenever they decently can".

As regards the relationship between job anxiety and absenteeism one would generally hypothesise that high job anxiety leads to high absenteeism because at low level of anxiety there is a general altering of the organism and increase in vigilance. In this state there is an increased sensitization to outside events and an increased ability to cope with danger. As anxiety mounts the organism becomes less capable of mastery. Behaviour loses its spontaneity and flexibility. There is general rigidification and individual responds in in terms of more habitual and hence safer response tendencies. In the case of industrial workers the very industrial environment and work seems to be anxiety producing and the safer response to this anxiety producing environment and work is to simply avoid it by getting absent.

On the basis of results and analysis it can be concluded that (1) There is a positive relationship between job anxiety and absenteeism, (2) high job anxiety bads to high absenteeism and low job anxiety to low absenteeism.

ACKNOWLEDGEMENT

The authors wish to express their gratitude to Dr. B.N. Gupta and Dr. S.K. Bhargava, Industrial Toxicology Research Centre, Lucknow for their valuable suggestions and comments on an earlier draft of this paper and to Mr. D.K. Pandey, K.G.Medical Collage, Lucknow for statistical assistnce.

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Effect of Creative Teaching on Creative Thinking of Adolescents

V. N. Sreelatha and Mathew George
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The purpose of the present exploratory and experimental study was to find out the effect of creative teaching in science on creative thinking proccss of twelve adolescents studying in class nine. The creative teaching was the indepenedent variable and the dimensions of creative thinking were the dependent variables. The —Mehdi's (1973) bettery of verbal and nonverbal tests of creative thinking were the tools used to measure the effect of creative teaching. It was found that there was significaut difference between the pretest and posttest raw score means in all the dimensions of creative thinking. The study has unfolded the enriching experience of twelve teen-agers in their encounter with a Pygmalion in the science classrom for one month.

INTRODUCTION

Creative process has emerged in the post sputnik period as one of the fascinating fields investtgation. It is surprising that people rarely think of teaching as a creative process and teachers as creative professional people. Real learning is creative. So the teacher who facilitates creative learning and the process of teaching are creative.

One fundamental fact about creative process is that it is concerned with thinking process. Investigations show that there are two distinct modes of thinking, one referred to as convergent thinking and the other divergent thinking. Couvergent thinking is stimulus bound and divergent thinking is stimulus free. Divergent thinking calls into play the ability to think up a number of solutions (fluency), the ability to think of different directions and approaches (flexibility), the ability to think up unusual solutions (originality) and the ability to think up complete details of an item (elaboration). Divergent thinking enhances one's sensitivity to problems, enables one to think beyond the lifespace, making the strange familiar and the familiar strange. The ability to restructure one's paychological 'set' in thinking and the creation of conducive climate are prerequisites for creative and productive thinking. The teacher's role is to work as a generator of ideas by facilitating the thinking process of pupils and to avoid functioning as regultor of ideas expressed by them.

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Education can help considerable in encouraging the development of creative potential. "In Creativity", observed Stoddard(1959) "we have the essence of what is worth saving, in education we have the means". One of the approaches to the enhancement of creative thinking stemmed from the view that it is a cognitive variable. Creative talent in children need be identified and nourished as early as possible. As Plato stated, 'what is honoured in a eountry will be cultivated there'. Applying it to the classrom situation, pupils learn whatever is rewarded by the environment. Creative thinking is necessary to level up the standard of living of the people and to solve the emerging problems due to industrialization, urbanization and pollution of the environment. Freeman and others (1971) report "perhaps the most promising area if we are interested in what can be done to encourage creative talent to unfold is that of experimentation with teaching procedures, which can stimulate students to think independently, to test their ideas and to communicate them to others". Further the report of the Education Commission (1966) starts with the statement "The destiny of India is being shaped in her classrooms". The ideas expressed above help us to conclude that classrooms become a nation's goldmines when schools become institutions for thinking and the society becomes as Arieti (1976) calls it 'creativegenic society'.

The Problem :

The problem of the present study may be stated as follows.

Effect of Creative Teaching on Creative Thinking of Adolescents.

It is an experimental study where verbal and nonverbal creative thinking are dependent variables and creative teaching independent variable. A pretest-treatment-post test single group design was used in the study.

The Objectives :

The main objectives of the study were : (1) to find out the effect of creative teaching on Creative thiking (verbal) of pupils, and (2) to find out the effect of creative teaching on nonverbal creative thinking of pupils.

The Hypotheses : The null hypotheses tested in the investigation were :

1. There is no significant difference between the means of pretest and post test verbal creative thinking (fluency) scores of pupils due to creative teaching.
2. There is no significant difference between the means of pretest and post test verbal creative thinking flexibility scores of pupils due to creative teaching.
3. There is no significant difference between the means of pretest and post test verbal creative thinking originality scores of pupils due to creative teaching.
4. There is no significant difference between the means of pretest and post test verbal creative thinking elaboration scores of pupils due to creative teaching.
5. There is no significant difference between the means of pretest and post test nonverbal creative thinking elaboration scores of pupils due to creative teaching.
6. There is no signlficant difference between the means of pretest and post test nonverbal creative thinking originality scores of pupils due to creative teaching.

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The Sample : The sample of the study consisted of twelve adolescents studying in class nine in a private school. Their age range was from 14 to 16. There were four boys and eight girls.

The Tools : The tools used were the following :

1. The Mehdi's (1973) battery of verbal test of creative thinking (Consequences Test, Unusual Uses Test, New Relationships Test and Product Improvement Test).
2. The Mehdi's (1973) battery of nonverbal test of creative thinking (Picture Construction Activity, Incomplete Figures Activity, Triangles and Ellipses Activity.
3. Creatitve teaching (seventeen lessons) in Biology. They were based on Guilford's Structure of Intellect model stressing the 29 SI factors of scientific creativity. The class room questions were structured to include lower order and higher order questions, and convergent and dlvergent questions.
4. The Creative Teaching Process self-rating scale : It was adapted from Torrance and Myers (1972) and used by George (1976). It was used for self-evaluation by the teacher after completing each lesson.

Definition of the terms used :

1. Creative Teaching

Creative teaching is that type of teaching which generates ideas using mainly divergent questions with the purpose of increasing the ability of seeing problems, 'luency, flexibility, originality and elaboration. The terms creative teaching and creative flearning are used to refer to what happens when the teacher and the pupil become involved in the creative learning process.

2. Creative Thinking

Creative thinking is a process of being sensitive to problems, defciencies, gaps in knowledge, missing elements, disharmony and so on ; itdentifying the difficulty, searching for solutions, making guesses or formulating hypotheses about the deficiencies : testing and retesting them ; and finally communicating the results (Torrance, 1966).

Procedure :

An ordinary private school was the venue of the experiment. As there were only 12 students in class nine, continuous and intensive interaction was possible between the teacher and the taught. So the sample was selected keeping the possibility of personal relationships and in-depth interaction in a small classrom which is natural. After establishing rapport, the Mehdi's (1973) verbal and nonverbal test of creative thinking were administered (pretest). Seventeen lessons in Biology were taken involving the pupils according to the lesson plans without disturbing the regular time-table of the class. After one month, when the seventeen lessons were over, post test was conducted using the same tool without changing the conditions in the class room. The pretest and post test were conducted and the answer sheets were scored according to the instructions in Mehdi (1973). To test the hypotheses, significance of the difference between the pretest and post test raw score means were used.

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Table-I

Pretest and Post Test Scores of the Sample (N=12)
and Significance of the Difference between Pretest
and Post test Meanss.

Pupils	Verbal Fluency		Verbal Flexibility		Verbal Originality		Verbal Elaboration		Noverbal Elaboration		Nonverbal Originality	
	Pertest	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
1	81	120	57	96	72	111	22	28	18	24	40	41
2	153	87	113	71	99	97	35	62	39	50	68	102
3	68	205	46	145	28	140	24	51	27	47	43	98
4	101	130	72	90	68	138	18	40	21	47	27	77
5	50	92	44	70	25	129	19	49	24	64	35	89
6	51	93	43	139	47	95	36	52	40	38	55	87
7	17	65	14	46	1	36	12	35	14	37	27	70
8	78	116	50	80	63	110	25	39	22	52	53	95
9	103	162	74	122	125	183	30	41	39	59	45	62
10	54	122	40	88	41	59	33	58	35	49	59	88
11	64	121	36	93	45	99	17	52	22	40	31	86
12	65	126	40	63	34	128	22	23	27	32	39	46
Mean	73.83	119.91	52.41	91.83	54.00	110.41	24.41	44.16	27.83	45.00	43.16	80.25
S. D.	32.69	35.08	23.80	28.70	32.41	36.84	7.31	11.36	8.39	10.75	12.82	16.40
t		3.18**		3.50**		3.81**		4.85**		4.17**		5.75**

** Significant at .01 level

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RESULTS AND DISCUSSION

The pretest and post test raw scores of 12 pupils for verbal fluency, verbal flexibitity, verbal originality, verbal elaboration, nonverbal elaboration and nonverbal originality are given in the Table-1, For each of these dimensions M and SD of pretest and post test raw scores and the *t* values are also given. In each dimension, the post test raw score mean was found to be high and the *t* values were significant at .01 level. Hence the four null hypotheses relating to verbal creative thinking of pupils and two null hypotheses relating to nonverbal creative thinking of pupils were rejected.

There are two opposite ways of improving the process of creative thinking. The first way is to try to improve it directly by establishing creative teacher-pupil relationship and intimate personal contacts leading to the qualitative improvement of the teaching-learning process. The discovery method, creative inquiry pattern, thought provoking and divergent questions, higher order questioning and problem solving approach are usually used in a classroom by a creative teacher. The second way is to recognize the barriers to creative thinking in a classroom and remove them so that creative classroom climate will facilitate the release of the creative potential. The indirect teaching behaviour (accepting the feelinge of pupils, encouraging their ideas and expression, using and developing the ideas elicited from pupils) enhances creative thinking process and direct teaching behaviour (directing, criticizing and justifying authority, and punishing) dircourages it. According to Sandhu(1979) creativity remains undeveloded and un-nurtured in the circumstances of our endcational system and society". The success of this experiment was mainly due to the teacher who acted as a Pygmalion in the class room using the two opposite ways of improving the creative thinking of pupils mentioned above. The harmonious blending of suitable clasrorm activites for the balanced growth and development of the cognitive affective, and psychomotor domain (confluent education) of the puptls further facilitated and stimulated the creative thinking of pupils. Thus creative teacher performance tends to stimulate creative learning with the result that both teacher and the pupils expand potentialites for creativity. A creative teacher perceives his classrom as a gold mine and his teaching as mining process. An ordinary indian class room wlll become a goldmine when the teacher accepts himself the challenge to become a transformer instead of remaining as an informer.

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A UNIQUE PUBLICATION OF PSYCHOLOGICAL & EDUCATIONAL RESEARCHES

STATUS OF INDIAN RESEARCH IN CREATIVITY

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Trends and Status of Testing in Creativity

Aruna Kakkar and L. P. Pandey*
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Creativity has been viewed as a normally distributed trait, an aptitude trait, an intrapsychic process, and as a style of life. It has been described as that which leads to innovntion in science, performance in fine-arts, or new thoughts. Creativity has been described as related to, or equatable with, intelligence, productivity, positive mental health, and originality. It has been described as being caused by self-actualization and by sublimation and restitution of destructive impulses.

Traditional Measures of Creativity

Before samples of the most relevant research are reviewed, preliminary comments are in order about certain widely available measures of creativity.

If school grades were efficient predictors of creativity, the identification of persons with outstanding creative potential would be simple. But not only certain school grades, but school grades in general have been shown to have low validity in predicting creative performance (Taylor, 1958 b; Tylor *et al*; 1961). If grades are ever to become valid predictors, a significant portion of school activities may have to be changed to demand creative performance and behaviour.

Evidence is gradually accumulating that traditional intelligence tests, at best reveal only miaor variations in creative performauce, they do not directly involve the ability to create new ideas and things. In factor-analysis studies by many research workers, the factors involving the ability to sense problem areas, to be flexible in each of several ways, and to produce new and original ideas tend to be unrelated or to have little relation to tests used to measure intelligence (French, 1951; Guilford, 1959 c.).

A number of studies suggest that the relation of intelligence tests or components of intelligence tests to creative performance is generally low (.20 to .40) in unselected

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* Aruna Kakkar is Psychologist and L.P. Pandey is the Director.

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populations and is zero and even negative for homogeneous samples at high levels of intelligence (Taylor 1958; Getzels and Jackson, 1959; Torrance, 1959c; Guilford, 1961; Mackinnon, 1959; Holland, 1961; Mullins, 1959; and Yamamoto, 1961).

The best conclusion at present is that intelligence, as measured, accounts for only a minor protion of the variation in creative performance and by itself, is by no means an adequate measure of creativity. In fact, nearly all research attempts to measure and study creativity have focussed upon non-intelligence intellectual tests, non-intellectual tests, biographical tests, biographical inventories and environmental factors.

Multivariable Approaches to Creativity

The forerunners of multivariable approaches to creativity were large factor-anailsys studies of well desiganed batteries. For example, important poioneering work was accomplished by Thurstone and his students, who initially analyzed the intelligence-test composites into multiple factors and later extended these efforts into new intellectual areas not cavered by inteiligence tests. Thurstone (1952) himself wrote a provocative report on creativity.

Guilford and his colleagues have actively advanced this type of work during the past two decades; their efforts culminated in Guilford's (1956) three-dimensional model of the stroctare of intellect. Guilford's most relevant study was a factor analysis of a large battery of "creativity" tests (Guilford, Wilson and Christenson, 1952; Guilford *et al*, 1951) that formed a main basis for his later statement that some components of memory, cognition, evaluation, convergent production, and especially divergent production are involved in creative work. More specifically, the high level aptitude factors most involved are probably originality, adaptive flexibility, spontaneous flexibility, ideational fluency, expressional fluency, associational fluency, word fluency, sensitivity to problems, visualization, judgement, and redefinition (Guilford, 1959 c.)

Investigations of creative promise have typically emphasized a broad range of assessment variables, an emphasis somewhat in contrast to the identification of the so-called intelligence type of giftedness by means of such a single measure as I. Q. score. Creativity measures have mainly included new intellectual characteristics not contained in I.Q. tests—motivational, biographical, sociometric, and other personality characteristics.

Stein (1956) studied forty-six industrial research chemists who were selected on the basis of composite ratings on creativity by supervisors, colleagues, and subordinates. He subjected them to a two-day individual and group psychometric analysis designed to yield both biographical and self-evaluative information on certain variables. On the basis of biographical data, Stein found that the more creative chemists in contrast to the less creative ones came from lower socio-conomic levels, engaged in solitary activities in earliar life, and had parents of lower educational level who were more distant and inconsistent. From the self-educations, Stein found that the more creative chemists tended to be more autonomous, strove for more distant goals, had

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more integrative attitudes, were more cautious and relistic, were more consistent in their desires for rewards, had a more differentiated value hierarchy and perceived themselves as assertive and authoritative, whith leadersip ability.

In a study of 103 Navy electronics laboratory scientists by Taylor (1958) a test was used for seleting Research Personnel. This test, consisting of job performances relevant to research (a) formulating problems and hypotheses, and planning and designing investigations (b) conducting investigations and interpreting results, and (c) accepting organizational and personal responsibility.

Cattel (1959) in a study of 144 leading research physicists, biologists and psychologists drew the following conclusions : the researchers were more schizothyme, less emotionally stable, more radical, and uniformly lower on all primary personality factors measuring extroversion.

Getzels and Jackson (1959) drew twenty-six "highly creative" and twenty-eight "highly intelligent" adolescents from a group of 440 high school students on the basis of their performances on an I. Q. measure and of a summated score on five "creative" instruments (word association, uses for things, hidden shapes, fables, and make-up problems). The two groups were than compared on a variety of variables and measnres with the result that the high I.Q. subjects used stereotyped meanings, had conventional standard of success, and aspired for conventional careers, whereas the highly creative subjects diverged from stereotyped meanings, had uncoventional standards of success, and aspired for unconventional careers.

Torrance (1959 c.) in a series of studies exploring creative thinking in the early school years, developed a tentative battery of measures for identifying creative elementary school childern and comparing them with their classmates on several variables. Such measures include the inventive manipulation of toys, alternative solutions to frustrating situations in well known childerns' stories, the Ask-and-Guess Test, and modified items for eliciting creative thinking. For example, through sociometric or peer nominations in thirty-three classrooms, Torrance found, with advancing grade levels, a progressive increase in peer sanctions against highly creative children.

The use of creativity-test scores as criteria by Getzels and Jackson, and Torrance has suggested other potential predictors. This plan for investigation appears to be a useful first step: it usually provides a reliable, imediate criterion. The value of such a criterion for discovering and validating predictors has in the degree to which such devices are equivalent to other more remote or more relevant criteria of creative performance. Such test scores may be useful in defining more explicitly the nature of adult creativity after these score have also been employed as predictors of creative performance in longitudinal studies.

Single-Test Studies of Creativity

Nearly every study involving even a brief biographical inventory or biographical

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approach for predicting creativity in scientists has been found to have promising validity in the initial sample studied (Setin, 1956; Knapp, 1956; Taylor, 1958; Roe, 1958; 1959; Owens, Schumacher and Clark, 1958; Cattell, 1961; Smith *et al*, 1961;Mullins, 1959). Mullins did not get good results on cross validation.

Such special aptitude tests as the Guilford Battery, devised to measure creative ability, had only modest success. The evidence for the validity of such tests is still incomplete and unclear.

Ghiselin (1956) described how an approach for obtaining descriptions of the creative process might eventually help is the identification of the creative individual. More recently Ghiselin developed a creative process checklist for the separation of more creative persons from less creative persons.

At the 1955 University of Utah Research conference on the identification of creative scientific talent, the word association test, scored for remote associations, appeared to be one of the most promising predictors.

Typical interest inventories, with a few exceptions, generally have been poor predictors including aptitude, Holland (1961) found simple interest measures to be among the best perdictors of creative perforance. A complex motivational device, used in a study of Air Force Scientists, had very few significant validities against several criteria, whereas a considerably higher percentage of the validities was significant for a brief and simple device measuring minimum aspirational level in several different aspects of scientific work (Taylor *et al*, 1961).

The validity of such personality inventories as the California Personality. Inventory, Sixteen Personality Factor Questionnaire, and Saunders experimental Personlity Research Inventory is generally low, although there is considerable variation according to studies by Holland and Astin (1961) and Tylor *et al*, (1961). In the latter study, the Personality Research Inventory yielded valid appearing scores in self-artistic ability versus practicality progressivism versus conservatism, and liking for thinking.

Simple self-ratings in adolescent and adult samples have proved to have moderate validity for a variety of creative performances. Terman's earlier work also showed that ratings of self-confidence, persistence, and integration toward goals were among his most efficient predictors of adult achievement.

Supervisor's ratings appear to be of some value for predicting creative performance, according to Buel (1960), Supsrvisor's ratings of creativity have also been used with success as rating criteria, and these have been predicted significantly by psychological scores in several studies, including the current Utah biographical Study of NASA Scientists and the Utah Study of Air Force Scientists (Taylor *et al.*, 1961).

Several investigators have begun wrok on unique devices and techniques for predicting creative performance, but at present no evidence for their validity is available. A new individual device called Problem Solving Apparatus, invented by John (1958), is highly complex and interesting and may have potential as a predictor.

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A review of the current status of predictors of creative performance suggests the following crude odering of predictors, by class, with respect to their efficicncy biographical items and past achievements self ratings and direct expressions of goals and aspirations, originality and personality inventories, aptitude and intelligence measures and parental attitudes. Any such ordering of promising predictors is admittedly hazardous, since it is subject to unknown biases and errors.

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Effect of Morale And Ego-Strength on Performance of Blue-Collar Industrial Workers

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The purpose of the present investigation is to find out the influence of morale and ego-strength on performance of blue collar-workers. The Employees' Morale Scale has been used to assess morale. It includes four subscales, namely, fairness of employers policies and behaviour, adequacy of immediate leadership, sense of participation and sense of worth of organization : regard and identification. Ego-strength has been measured by the Hasan's E-S Scale. Thc Performance Rating Scale has been used to assess the level of performance. The study has been conducted at Sahupuri Chemicals and Fertilizers, Sahupuri, Varanasi. The sample consists of 200 bluecollar industrial workers. The results are analysed in terms of mean, standard deviation, critical ratio, analysis of variance and correlation. The findings indicate that the level of performance is significantly higher in high morale group in comparison to low morale group. A significant difference in performance was also observed between high ego-strength-low ego-strength groups. A significant positive correlations between morale, ego strength and performance have been found.

One of the most pressing problems facing industrial organisations is how to increase productivity. The amount of production is known to be affected not only by material and physical factors but also by social and psychological factors. Thus, in order to increase productivity, it is essential to know the worker's attitudes and his personality.

Employees' morale has been a widely studied concept in industrial as is social psychology. Harrell (1964) reviews a dictionary definition and comes to the concusion that

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high morale would imply perseverance at work, which is important to the objetcive of management. Blum and Naylor (1968) consider industrial Morale as the possession of a feeling on the part of the employees of being accepted and belonging to a group of employees through adherence to common goals. According to Smith and Wakeley (1972) morale concerns the work itself. They consider it to be the worker's intrinsic interest in what he is doing as measured by his work effort, initiative and satisfaction.

Pestonjee (1973) considered that employees' morale is a general attltude of workers based upon their faith fairness of employer's policies and behaviour, adequacy of immediate leadership, a sense of participation in the organization, and an over-all belief that the organization is worth working for.

Payne, Fineman and Wall (1975) in his article, have attempted to analyse the concept of organizational climate and job-satisfaction and to provide a conceptual synthesis, their facet-anatysis reveals that we can have at least two types of morale—role morale and organizational morale. In both cases, the unity of analysis are a social collectivity (aggregate) and the nature of measurement is affective. However, the two terms differ when their elements of analysis are cpmpared. In the former case the emphasis is squarely on the job, where as in the latter case it is on the organazation department or team. The definition cited above relates to organizational morale.

It is a common observation that individuals do differ in the efficiency of performing the set of functions attributed to ego. The concept of ego-strength is an imprtant factor in determining the capacity of an ihdividual to perceive a challenging situation realistically and to execute the response effectively (Ali, 1975). It is important to point-out that the foregoing definition of ego-strength is likely to be accepted by those also who do not subscribe to psychoanalysis. One may not agree with psychoanlaytic theory of the structure of personality and yet can accept the concept of ego-strength if it is defined as the total psychic energy at the disposal of the individual enabling him to enjoy his strivings to master the environment. Such nonpsychoanalytic concepts as White's(1959) competence motive, Maslow's (1954), self-actualization and psychological health seem to have much in common with the concept of ego-strength.

In equating ego-strength with competence motive, psychological health, etc., we are paying due regard to Barron's (1963) point of view who maintoins that the most important consideration in judging the strength of a person's ego is not the amount of troubles, conflicts, and crises that he encounters, but the manner and confidence with which he encounters them.

The present study attempts to find out the effect of morale and ego-strength on productivity of blue-collar industrial workers.

Hypotheses: The following two specific hypotheses have been formulated—

1. The level of performance is influenced by high and low levels of morale.
2. The level of performance is influenced by high and low levels of ego-strength.

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METHODOLOGY

The present study was conducted at Sahupuri Chemicals and Fertillzers, Sahupuri, Varanasi (U.P.), India. 200 blue-collar workers were selected as subjects. The sample has been drawn from different sections of the project. These Sections are soda Ash Process Plant, Soda Ash (Maintenance), Gas Ammonia Plant (Process), Gas Ammonia Plant (Maintenance), Power Plant Workshop, Electric and Civil Departments.

The study involves measurement of three variables, namely,morale, ego-strength, and performance. Morale and ego-strength are the independent variables and performance is the dependent variable. Morale and ego-strength both will bc given two treatments, *i.e.*, high and low which will be manipulated by selection of the subjects on the basis of their responses. A 2 × 2 factorial design will be used employing analysis of variance.

For the evaluation of morale, the *Employee's Morale Scale* has been used. The EMS includes four sub-scales. These are (i) fairness of employer's policies and behaviour, (ii) adequacy of immediate leadership (iii) sense of participation, and (iv) sense of worth of organisation : regard and identification. Respondents are required to choose any three from the seven statements given in each sub-scale (Pestonjee, 1973).

The *Hasan's E-S Scale* has been used to assess the ego-strength of blue-collar workers. It consists of 32 statements in simple Hindi. The workers are required to rate himself on these statements. The odd-even reliability of the adapted scale is found to bc. 78· The test-retest reliability coefficient of the adapted scale were found to be .86 and .82 respectively (Hasan, 1970, 1974).

The *Pcrformance Rating Scale* has been used to ascertain the level of performance. This scale comprises 14 items. Each item of the scale has five response alternatives, *i,e.* very poor, poor, average, well, and very well. The supervisors are required to rate how well the particular subordinate was doing on each of the fourteen items. Reliability was determihed by computing Cronbach's (1951) alpha coefficient which was found to be +.99. The index of homogeniety and internal validity of the items were tested by computing the point biserial correlation (*rpb*) (Singh and Pestonjee, 1978).

RESULTS

The results of the present investigation are recorded in Table I to III.

Table-I records the mean. standard deviation, and critical ratio of the performance scores of the high morale-low morale and high ego-strength low ego-strength groups.

Table-I

Significance of difference in performance scores of high morale—low morale and high ego-strength-low-ego strength groups.

	Mean	S.D.	C.R.	p
High morale (N=54)	45.90	12.72	2.11	.05
Low Morale (N=50)	39.90	15.10		
High ego-strength (N=49)	47.34	11.40	2.98	.01
Low ego-strength (N=29)	39.61	10.95		

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Table-II records the effect of morale and ego-strength on performance of blue-collar workers employing analysis of variance.

Table-II

Effect of morale and ego strength on performance : Analysis of Variance

Variance	SS	df	MS	E	p
A : Morale	2.52	1	2.52	.14	NS
B: Ego-strength	130.69	1	130.69	7.33	.05
A × B : Morale × ego-strength	9.37	1	9.37	.53	NS
Error : Within treatment		38	17.83		

Table-III records the correlation coefficients between morale, ego-strenght and performance.

Table-III

Inter-correlatton matrix for morale, ego-stranght and performance

	1	2	3
Morale	×	.32*	.150**
Ego-strenght		×	.185*
Performance			×

* Significant at .01 level.

** Significant at .05 level.

DISCUSSION

It is commonly assumed that high morale usually causes high productivity, the consensus of the evidence does not support the assumption. Brayfield and Cryckett (1956) reported that the results have generally shown the groups high in morale to be high in production. Differences in production have, however, not been great, regardless of the size of the differences in morale. Vroom (1964) reviewed 20 empirical studies of performance-satisfaction relationship and found a median correlation coefficient of +.14 between the two variables across the various studies' with correlations ranging from — .31 to + .86.

From table-I, we observe a significant difference in the performance scores of the

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high morale-low morale and high ego-strength-low ego-strenght groups. The mean seores of the performance scores was found 45.90 under high morale group and 39.90 under the low morale group. Standard deviation was found 12.72 and 15.10 for high morale and low morale groupe respectively. Critical-ratio was obtained 2.11 which is significant at .05 level. The results indicate that the performance of high morale group is better than the performance of low morale group. High morale in a work situation is the condition that exists when people are motivated towards high productivity and '*vice-versa*'. Despite the intuitive appeal of the view that satisfaction cause performance, to managers and others seeking easy "recipes" for productivity, there is little theoretical or emprical support for such a position, and recent research tends to support the alternative view that where a positive association exists, it is due to good performance giving satisfaction to the worker (Kerr, 1978; Lawler 1973, Law and Porter, 1967 ; Locke, 1970 ; Slocum, 1970). More recently interest has been focused on attempts to identify those variables in which organizations might serve to enhance the job performance-job sattisfaction relationship (Cherrington, Reitz and Scott, 1971 ; Greene, 1072 ; Hackman and Lawler, 1971 ; Porter and Lawler, 1968 ; Schwob and Cummings, 1970 ; Yukl, Wexley and Seymore, 1977, 1972; Steers, 1975 ; Singh and Shrivastava, 1978, 1979).

In case of ego-strength, the mean performance scores of employees was found 47.34 and 39.61 for high ego-streugth and low-ego strength groups respectively. Standard deviation was found 11.40 and 10.95 for high ego-strength and low ego-groups. Critical-ratio was obtained 2.98 which is significant at .01 level. Results indicate that the performance of high ego-strength group is better than the low ego-strength group. It is due to the capacity of an individual to perceive a challenging situation realistically and to execute the response effectively (Ali, 1975). Strength of a person's ego is not the amount of troubles, and crises that he encounters, but the manner and confidence with which he encounters them. Thus it may be concluded that the employees with high ego-strength are more productive in comparison of low-ego-strength group. The results of the present investigation are consistent with some of the researches in which it has been reported that the performance of high ego-strength group ? (Hasan and Kumari, 1973 ; Ali and Ahmad, 1975 ; Ali, 1975).

To confirm our results further we have applied analysis of variance to findout the effect of morale and ego-strength on performance (table-II). High and low morale groups do not significantly differ in levels of performance, ($F=.14$; $p=N.S.$). But performrnce was found to be significantly affected by high and low levels of ego-strength ($F=7.33$; $p < .05$). The interaction effect of morale and ego-strength on performance was also not found to be significant.

From the results of this study it can be concluded that the relationship between morale and performance was not as strong as it had previously been supposed. Considerable research effort has focused on determining the conditions under which the two variables are related. The relationship ma y be moderated by effects of the work environment, for example, pressure to produce (Ewen, 1973); type of reward system (Kesselman, Wood

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and Hagen, 1974); or the effects of the personality of work orientation of the individual worker, such as his job involvement (Wood, 1974), etc.

Korman (1971) reported that a high self-esteem worker attempts to perform well in order to be congruent with his self-concept, and becomes dissatisfied if his performance remains low. A low self-esteem workers does not attempt to perform well and becomes dissatisfied if his performance is high (and hence incongruent with his self-concept). It follows, first, that performance should be higher for high-self-esteem workers than for low; and second, that performance and satisfaction should be correlated positively for high-self-esteem workers but negatively for low. In practice, the last relationship may be marked by a social norm that encourages the belief that high performance is more satisfying than low performance.

The coefficient of correlation between morale, ego-strength and performance has been computed (table-III). The correeation between morale and performance was found to be +.156 which is statistically significant at .05 level. It indicates that morale and performance is positively correlated. When the level of morale increases performance will also increase and 'vice-versa'. The correlation between ego-strength and performance was +.185, which is statistically singificant at .01 level. It indicates that ego-strength and performance is positively correlated. When the level of ego-strength is high the productivity will also be high and 'vice-versa'. The correlation between morale and ego strength was +.32 which is statistically significant at .01 level, it indicates that as the morale of workers will be high ego-strenght will also be high.

From this study, it has been concluded that the level of performance depends on the morale and ego-strength of the workers. It looks like to scientific equation. As the residue depends on the reaction of the products. So the following scientific equation can be formulhted by this psychological study :

(1) Morale
| —
| —Performance
| —
Ego-strength

(2) Morale ⇌ Performance ⇌ Ego-strength.

This psychological frame of scientific equation shows that the performance depends on the levels of morale and ego-strength. Thus a higher level of morale and ego-strength are necessary pre-requisities for better performance.

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Self-Actualisation And East-West Synthesis

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The Basic Force that motivates human behavior is self-adualisation, according to Can Rogers. It is a tendency towards fulfiement. The organism seeks to fulfill its full potential. A person may not perceive progressive and regresive action, but if he perceives, he chooses the path to progress. There are many needs, but they are all below the need for self-maintenance and enhancement. This tendency comes into conflict with positive self-segard, that is acceptance by others. There also a conflict with self-segard. The need for self actualisation directs the individual to seek or avoid certain activities. But the objective is to enhance the personality. In case of positive regard the objective is acceptance by others. Hence the conflict. If this acceptance is there, the conflict is lessened.

The person who focussed attention on self-actualisers was Abraham Maslow. He developed a hierarchy of needs, from biological to psychological and then to self-actualisation. It implies harmanious personality.

Maslow selected histosical figures; whom he considered to have developed to their creative potential found out some of the charactestics which these pople possess. They perceive reality, can tolerate uncertainty. They accept themselves and others. They are spontaneous. They are problem centred and not self-centred. They have a good sense of humour. They are creative. They resist enculturation. They work for the welfare of maukind. They appreciate basic experiences. They establish satisfying relations. They are able to look at life from objective point.

The second type of study that Maslow undertook was the study of Collage students, who were using their talents to full capacities. He noted that there are certain behavior that lead to self-actualistion, concentration, seeking new ways, evaluating own

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their own standard are some such behvaiours, Honesty, Responsibity, hardwork, division, courage are some such charateristics.

Some people experienced only a few moments of self-actulisation. These expeniences are called Peak Experiences. These experiences included perfections, Liveliness, uniqueness self-sufficiency, Beauty, Goodness and Truth. Our needs are not antisocial.

The views of Maslow are simlar to those of Eastern Philosophers. The Humantisic Theory focusses attention on individual behavior. Excessive self-disclosure as well as low disclosure are the signs of immature personality.

Our Perception of the word and the self is a self-concept and it works towards self fulfilment. It is optimistic. It emphasises self awareness. It is said that the concept of self-actualisation is hot precisely defined. The views of total personality are not scientifically perfect. The Trait theory fails to consider situation, the social learning theory does not provide a complete view of the individual. It studies, behavior specific in particular situation. But the theory of humanistic psychology emphasises cangurence between the self and the reality, between the self and the ideal self. The attempt made by Maslow to define self-actualisation are based on self-concept, the nearsment and self-disclosure.

Although a complete portrait of individual is not get availablee, the theories based on cognitive processes and social role must be specially considered in the description of personality. Abraham Maslow developed Humanstic Psychology in trying to coplain why some children are more motivated to leam than others and why same individuals are better adjusted that others. Each child is born with an essential nature. It is shaped by experience, unconscius thoughts and feelings, but can be controlled. He proposed the theory of growth motivation or need gratifaction as the most important principle undertaking all development. He proposed a hierarchy of needs, physiological needs at the bottom, through safety & belongness and love needs srising to esteem needs, then the need for self-actualition which faver needs are satisfied an individual is motivated to satisty higher needs 8 we must take into consideration the difference between deficiency needs and growth needs. The goals of education must be attainable so that interest in learning is sustained. The three levels of learning accepted are 1. Forming associations, 2 Conceptualisation or grasping inherent relations and 3. Creative self-direction. Our goals and activities of education must be based on the basis of herarchy of needs rising to self-atcualisation as the highest need, so that education becomes highly motivated.

*

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GROWTH-TRENDS OF CREATIVITY—COMPONENTS IN ADOLESCENCE

The paper seeks to study and explain the growth or decline of five components of creativity. The components are, C. P. (Creative production); Fl. (fluency) Fx. (Flexibility); Org. (Originality); and Isp. (Ingenius Solutions to Problems). CP is a new conceptucent proposed by the author. Fl., Fx, Org follow the Guilfordian tradition.

The author proceeds on the basis of 100 trivariate factorial experiments of his D. Litt. work. Each experiments has a sample of 300 elements.

It is noted that trends of growth for the five components do not follow a uniform pattern. Personality and sex affect growth or decline of each component in characteristic ways operations change with the changes in sets. The age-level of 19 years appears highly important where creativity is noted to proceed dialectically through 'unity', 'differentiation' and re-integration'...The psychodynamics of the atypical 19th year, tells the story of an ailing self 'that tends to 'introversion', 'emotional dryness', and 'threat-sensitivity'. Creativity' unfolds itself as the 'striving' of the self.'

INTRODUCTION

Man, as Arasteh (1976) points out, has been creative from the dawn of his awareness of himself. Man's basic striving in life is to create Creative imagination transcends the threshold of consciousness and is a visionary quality wherein man becomes aware of the unit of life and makes an effort to actualize it. (Arasteh, 1976 p. 3).

Creativity, in adolescence, continues to be a neglected field of research and application (Torrance, 1964; Arasteh, 1976). Suggestions have been made to explore creative process in adolescents through the study of Youth-culture (Cachdan, 1971; Cottle, 1972). Studies related to growth of creativity have found its years of decline. Creative abilities decline between sixth and seventh gredes, then rise steadily until near the end of high school which they level off and decline slightly. Other study notes that creativity, remaining relatively constant from three to fifteen years, shows a sharp rise from fifteen to eighteen (Trowbridge, 1966). Characteristic decline of creativity has also been noted at five, nine, thirteen and seventeen years (Torrance, 1964).

Do the age-levels of 5, 9, 13, and 17 years represent some universal character of growth of creativity ? Are there some other age-levels of decline ? Lehman (1953) notes that creativity grows upto 13 years. Taking creativity as a complex of sub-abilities, (Wilson, 1954; Guilford, 1961), is it desirable to accept such age-levels common to all ? The blooming creativity of adolescence must be appreciated in broad perspective provid-

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ing essential details. The paper attempts to study growth trends of creativity components in a multivariate setting consisted of personality, sex and late adolescence.

Creativity is intimately related to the framework of personality of the 'Liebnitzian Model'. Personality is a unified, self-directed future oriented system wherein mind is active and manipulative. Man strives to realize his existence. (Horney, 1945; From, 1964, 1970; Maslow, 1954). Impetus for growth emanates from within and is the end-product of the 'real self' (Horney, 1953); 'autonomy-harmony' (Angyal, 1951); 'striving for self-consistency' (Lecky, 1941): or 'propriate patterning' (Allport, 1960). Self, in the context, is not a 'mirror of evaluations of others', but is a totality of the individuals nature and Potentials. (Horney, 1950; Fromm, 1955; Rogers, 1959).

Adolescence may be seen as an important segmental space where 'self-striving' for purposes of its own actualization is viewed and evaluated in terms of its health and adequacy to proceed through the present. 'Self-concept' emerges, as the most significant event from birth onwards, (Rogers, 1939) and motes towards its own actualization through unity differentiation—re-integration (Angyal, 1941). The crucial task for adolescence are directed towards integration of childhood-identifications with basic biological drives and offered opportunities in social roles.

DESIGN AND METHODOLOGY

In this 'Ex-Post Facto', multivariate study, age levels (17, 19, 21 years) have been studied in retrospect in the personality, sex framework for their possible relations to and affects on the fine dependent variables of creativity components*. The number of elements of the sample in each one of the five studies is 300. F-test has been used for emperical verification of 900 Null hypotheses.

RESULTS AND DISCUSSION

The summary of findings** is given on next page :

---

*The five components of creativity are;

1. **CP.** Possessing both literary (D. M. U.) and constructive (D. F. T.) creativities. The sementic contents, through divergent thinking give units and figural contents result in transformations.
2. **Fl.** Has a rapid flow of ideas and a tendency to change directions and modify information (Eysinck, 1975).
3. **Org.** Requires unusual ideas and suggestions for unusual applications of particular objects (Eysinck, 1975). It is DMT.
4. **Fx.** It is readiness to change behaviour to meet changing circumstances. It is both DMC and DFT.
5. **Isp.** It is inventive. It is the right answer choice among many alternate ones. It is NMU.

**Chauhan, N. S. Creativity components as Functions of Personality Factors, Sex and Adolescence. D.Litt. Thesis, Agra University, 1979.

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(A) The Age-level of 17 years :

1. Originality rises after 17 years in adolescents with adequacy (O—) and more of adjustment (QII—).

2. Flexibility with sensitivity to threat (H—) rises after 17 years but a decline is noted in it when asseciated with brightness (B+), social boldness (H+) and weak ego (C—)

3. Isp., in association with desurgency (E—) and less of adjustment (QII—) rises after 17 years but declines when it associats itself with surgency (F+), high adjustment (QII—) and relaxation (Q4—).

4. Masculine flexibility, with threat sensitivity (H—) or social boldness (H+), rises after 17 years. Feminine Isp. with desurgency (F—) and high super ego strength (G+) masculine Isp., with low super ego (G—) and relaxation (Q_4—) exhibit identical growth trend cited above.

5. Masculine Isp. with high super ego (G+) and feminine Isp. with relaxation (Q_4—), decline after 17 years.

6. Flexibility with guilt proneness (O+) rises after 19 years with a clear decline after 17 years.

Results indicate that originality and flexibility grow without declining. Flexibility rises and falls Isp. behaves like flexibility. Both are sex-sensitive. Sensitivity to personality is available in originality, flexibility and Isp.

(B) The Age level of 19 years and beyond.

7. Creativity components, that rise upto 19 years include CP[1], feminine CP[2], feminine fluency[3], masculine flexibility[4] and masculine originality[5].

8. Components that rise after 19 years are, fluency (QI—, QIII+); masculine originality (E—); Flexibility (QII—, QIII+, QIV—), masculine flexibility (O+) and ingenius solution to problems (QI—, QII—, QIV—).

9. Components that rise upto 19 years and decline there after are, masculine C.P. (A—); Fluency (I—, QIII+); anfl Flexiblity (Q1—).

10. A decline upto 19 years is noted in fluency (B—, Q1—), and feminine flexibility (E—, F—, H—, M—, QIII+).

11. It is fiuency (Q1—, Q4—) that rises again after declining upto 19 years.

---

1. Possessing personality factors *e.g.* A—, F—, G—, H—, I—, L—, N—, O—, Q1—, Q2—, Q3—, Q4—.
2. Possessing PFs; A+, H—I—, M—, O—, Q1—, Q2—, Q3—, Q4—.
3. Possessing PFs : A—, B—, C—, E—, F—, G—, I—, L—, N—, O—, Q1—, Q2—, Q3—, Q4—, QI—, QI—, less QII—, QIII+, QIV—.
4. Possessing PFs; B—, E—, G—. I—, H—, L—, M—, N—, O—, Q1—, Q2—, Q3—, Q4—, QI—, QII—, QIII—, QIV—.
5. Possessing PFs. F—, H—, H+, QIII+.

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12. Components that decline after 19 years are, originality (A—, B—, C—; E—, F—, G—, I—, L—, N—, O—, Q1—, Q2—, Q4—, Q1—, less of QII—, QIII+, QIV—) masculine fluency (A+, B—, E—, QIII+, QIV—) feminine flexibility (C—, H+, Q8—).

13. Components that register a consistent rise during the period are, C. P. (B—, C—, E—, QI—, QII—, QIII+, QIV—), feminine CP. (C—, E—, QI—, QII—), feminine fluency (more of QII—); originality (Q3—, QII—); masculine originality (A+); feminine originality (A—); flexibility (QI—): Isp. (H—, QIII+); and feminine Isp. (G—).

14. Components that consistently decline during the period are, masculine fluency C—, E—, F—, G—, H—, L—, N—, Q1—, Q2—, Q4—, QI—, QIII+), flexibility (O—); and feminine flexibility (E—, G—, I—. L—, N—, Q2—, Q3—, Q4—, QI, QII—, QIII+),

It is to be noted that creativity components of adolescence, during their process of growth or decline, maintain characteristic affnity with personality factors and sex. The puception of the chronological puspective from 17 to 19 years shows that operation capacity of creativity components fastly grows both in intensity and extensity. The multimodel trends of growth of these components exhibit characteristic association with factors of personality and sex. These trends are mostly curvilinear.

Concluding Remarks :

Why does the chronological point of 19 years remain of crucial worth in characteristic growth or decline of creativity components ? What is its plansible psycho dynamic? Certain clues are available to us.

(a)—CP. is noted as a consistently rising component of creativity. Independent of sex, it possesses dryness of emotionality. (A—). Others have noted that it promotes both tradition-tolerance (Q1—) and sensitivity to threats (H—; Gupta R. P., 1975). The high level of CP. possesses introversion (Gupta, R. P., 1975).

(b)—The consistently rising feminine fluency shows the widest sex-variation at 19 years. Gupta (1975) has noted that high feminine fluency promotes inrospection (QI).

(c)—The consistently rising originality is characteristically antic (M+), thereby refers to internally autonomoces temperamental capacity in operation. Originality possesses emotional dryness (A—) and threat-sensitivity (H—). Gupta (1975) has noted that originality promotes both introversion (QI—) and the readiness to handle problems at a dry cognitive level (QIII+).

(d)—The consistently declining feminine flexibility, as Gupta (1975) notes, promotes introversion (QI—).

(e)—Isp grows consistently. It promotes cortertia (QIII+) at 19 years. (Gupta, R. P. 1975).

From the summing up of the facts, it is clear that the age of 19 years exhibits characteristically prominent social inhibitions related to 'self-concept' with the result that 'internally autonomous temperamental 'self-sapce' is created. Emotional dryness or

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affective apathy results. The inherent sensitivity to external threats impels the ailing 'self' to handle problems on a dry congnitive level. Radical outlook gives way to traditional conforming behaviour. All of this sort of 'life-sapce' goes to retard the on going mode of healthy 'self-striviag' in certain respects. This atypical phenomenon is substituted and compensated through additional growth acceleration of other modes. Creativity, as a basic striving of life, (Arasteh, 1976) proceeds dialectifically through 'unity'—'differentiation'—'re-integration' (Angyal, 1941).

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2nd. All Indian Conference of Psychology and Education.

EDUCATION FOR PROBLEM CHILDREN

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INTRODUCTION

The position occupied by children in the present social order, stands in marked contrast to the social status and roles assigned to then by the communities of the past. The twentieth century has witnessed a transition from an adult—centred social system to a more child-centred system, mirroring wide changes in outlook about the nature of human relationships and the special moods of treatins the younger generations. This attitudimal change has its genisis in an increased understanding of the psychology of children, the repidly expanding diversity of human experience, and the dramatically increased social choices available to the humans in a post-industrial world. It has been recognised that, if children conta in the seeds of adult's adaptive genius, then special care must be devoted to the fulfilment of this promise. Society's response, therefore, invitably includes a king of schooling of the young which prepares them for a more relavant and humane adult, role. It is in the context of this adaptive process that psychologists and clinical social-workers generated a wide variety of diagnostic and therapeutic efforts meant for humanising the adult treatment of children. The new systems naturally gave special attention to the problem of dealing with droubled and or troubling children.

All children are, of course, not completely equipped for all eventualitie in life. Yet, most of them menage to survive either because some of their assets can by used to compentate for their inabilites or because these children are able to avoid situations where their weakness get exposed to society. There is, however, a small but significaht number of children whose "handicaps" are so extreme that they are unable to benefit from our regular educational fecilities and therefore must receive special attention and treatment. If it ware possible to understand such children, or atleast fathom the causes of their deviance, it might be possible to adopt preventivie techniques so as to alter the abarrant course of psycho-socio development which will inevitably follow:

Problem children defined :

In common language, the term "problem children" is used to signify 'pcrplexing or difiicult children.' However, in this paper, the term 'problem children is used in a more technical and wider sense (as used in the psychological literature), to include those children with mental, physical, social and emotional "disabilities and disadvantages" or what can be termed as 'handicaps'—factors likely to cause learning hardships, especially in orthodox educational settings.

The present paper examines some of the current educational thinking to the educa-

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lion and remediation programmes available for different categories of problem children: children with mental handicaps, physical handicaps, emotional handicaps, social and cultural handicaps and atistic children.

Need for special educational provisions for problem children :

All education is concerned with the optimal developmene of the individual. Teachers, besides promoting intellectual skills in the acquisition of knowledge, also attempt to encourage individual children to adjust both personlly (in preparation for abult life) and socially (as a member of a community), The aims of special educational provision are also the same, except that the order of priority must take into account the exceptional handicaps of each child. The key to special educational provision is to help each problem child in adjusting and compensating for his disabilites as well as in fulfilling the broader aims of education, listed above. The mentally dull may be helped to grow up, find work and run a home, having many exacting responsibilities for which they must be prepared. The physically disabled who also develop personal and psychological maladjustments as side effects of their physical condition (because they have difficulty. coming to terms with the inadequacy they feel in comparison with others) would need special help in overcoming difficulties encountered in a number of selected behavioural dimensions. Problems of this kind require different emphases and careful handling which can be provided only by speciglists through highly individualized educational and social treatment.

Problem children : Categories and educational provisions :

For ease of description of problem children and evolving the necessary special provisions for their education, we shall classify them into four major categories—mental, physical, social and emotional handicaps, though it is emphasised that these categories are not mutually exclusive. Moreover, it is now unfashionable to attach too much importance to these separations. Frequently those with one major handicap may suffer in other ways also. A physically disabled child may also be mentally backward (double handicaps) and suffer from emotional and social problems; the emotionally disturbed may sometimes display socially deviant behaviour. It is now well-accepted that any stereotyped pattern of educational facilities given for any group (even in special institutions) would be totally inadequate for the range of problems prevalent among each category of handicapped children.

To meet these difficulties of classification, it would be better to consider the education of problem children in terms of the resources and purposes to be served by these special forms of education. Three forms of provisions may be broadly listed : special, remedial and compensatory.

(a) Special education serves those who are in need of special environment for medical, teaching and curriculum purposes. *e.g.* Full or part-time residence or day special schools when the home or regular school is inadequate to cope with the unusual demands of the child. Custom-made facilites have to be provided in special centres.

(b) Remedial education is usually meant for individual children who are experiencing particular difficulties in scholastic or mechanical skills.

e.g. remedial work in reading, writing and other language skills.

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(c) Compensatory education is provided in the belief that the home and environmental circumstances of some children are so limited that programmes concentrating particularly on language and social skills are necessary. Development is thought to be retarded by cultural deprivation. In some cases, the whole school may be oriented towards remedying the disadvantages of the neighbourhood circumstances. In other cases, one or two classes in a school are given over to the children from disadvantageous backgrounds. Social as well as educational services play an important and active part in the liaison between home and school.

Mental handicap, in the present context, is being reserved for chose who are 'backward' or to use a more recent and acceptable term 'show learners' (a child who is not coping with the work normally expected of his age group). Two broad distinctions may by perceived among slow learners at school viz., mentally dull and mentally retarded.

Slow learners : mentally dull

These include those children who by natute have limited intellectual endowment (approx. I.Q-=90—60) and who would not be expected two become bright adults after receiving specialized education. But still; we need to give them special education either within the normal school setting or in special schools.

Educational peovision for these should include the following :

(a) ordinary primary and day schools :—
(b) special classes attached to ordinary primary and day schools:
(c) individualized teaching; and
(d) admission to special institutions.

Slow learners: mentally retarded

These incluve children whose I.Q is approximately around 100, and whose achievements are depressed by causes other thanelow mental ability (such as physical personal, envi ronmental and emotional causes) and who could, in fact, with careful handling and remedial aid be expected to do better (quite remarkably in some casses). These children most frequently require remedial education to discover their particnlar problems and provide additional educational support to normal schooling.

Remedial education for the retarded generally takes the from of individual or small group tuition by skilled teachers or educational psychological service. The curriculum should be concerned with the concrete and practical scholastic wor8 rather than with adstract thinking. The commonest subject is reading, but speech therapy, number and writing also figure prominantly in the list.

Educationally sub normal—ESN

This group (ESN) has an I.Q in the aange 80—45. The children of this group have serious mental dificiency and hance will have to be referred to special education school (day or residential), which can cater for individual needs, using skilled and specially trained staff.

Educational provision for ESN includes:

(a) special classes attached to primary and secondary day schools.
(b) day/residential special schools for the ESN.

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Small classes are ideal for the education of the ESN (ideally no more than twelve). The curriculum for ESN should be less verbal and more practical. The 3 R's should be taught with a view to helping children in the difficult task of adjusting to a normal life in society.

Severely Sub Normal—SSN

Children of I.Q. approximately less than 50 and who are generally, not capable of benefitting from academic kinds of schooling are classified as severely subnormal (SSN).

Educational provisions for the SSN include:

(a) residential special schools for SSN (mostly 'training' schools)

(b) hospitals for the subnormal (when a child has physical complications as well and cannot care fore himself)

Until recently SSN ware considered to be ineducable, but it has been shown that some of the more able can learn simple reading and writing skills. The priority is to help them in motor, perceptual and simple language skills, so that they can gain some personal competence in looking after themselves (feeding, dressing, toilet, homely routines) and social competence in communicating with others and possibly engaging in some king of simple manual work. There are some unfortunates who are hospitalized and never attain even these basic human competences and must depend on others for their daily routines.

THE PHYSICAL HANDICAPS

Physically handicapped includes four main groups listed below :

(a) Defective in senses—consisting of the visually handicapped (totally or partially blind) and the auditory handicapped (the 'deaf' as well as 'hard of hearing').

(b) Defective in speech—including all categories of speech handicapped. (Functional, organic and psychogenic).

(c) Defective in motor ability—including all categories of orthopedically handicapped (ceredral palsy, bone impairment etc.).

(d) Special health problems—such as epilepsy, cardiac disabilities etc.

Some children have complications arising from their physical handicaps which mark communication difficult.

eg. speech organ deformities or hand paralysis preventing writing. Emotional and social problems can soon arise from the frustrations of immobility unless carefully handled.

Educational provisions :

(a) Special educational provision include special schools for the physically handicapped which can cater medically as well as provide educational services. (e.g. special schools for the blind, deaf etc.)

(b) Involvement of the paramedical staff (nurses, physiotherapists, occupational and speech therapists) who can work along with the teaching staff to give individual help to the child. Team work in special schools is very necessary, where children are able to go on to more academic work, every encouragement should be given. The fact that several

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cases of bling, deaf and chair-bound adults have fouud a place in higher education and in work denanding high intellectual skills can be used as a motivating factor in the education of the handicapped.

(c) Encouraging family life, where possible, because parents can do a great in providing a secure and stable background for their children to all their efforts is an attempt to give the child as much self-assurance and independence as he is capable of and, where possible, to draw on the child's capacities to enble him to take some part in community life.

THE EMOTIONAL HANDICAPS

Emotional disturbance is one of the most common behavioural handicap that it needs very special treatment in the hands of the behaviour therapists. All of us have sometimes experienced symptoms of emotional stress and disturbances without their unduly affecting our daily lives. Temporary effects such as lack of concentration, quich arousal to anger or tears, temperamenial fickleness are soon overcome. But there is a small group of children and abults who are unable to overcome their emotional problems. When emotional handicaps reach the stage of being so grave as to affeot social development leading on to behaviour disorders (and frequently influencing social work), we term this 'maladjustment'. Maladjustment is exemplified by pupils who show evidence of emotional instability or psychological disturbance and requires pecial additional treatment in effect their personal, social and educational adjustment.

Symptoms of Maladjustment

There are six groups of symptoms commonly associated with maladjustment which can generally be dealt within the normal school setting by teachers aware of the problems and possible solutions. Example of the six groups of disorders are :

(1) Nervous disorders—such as depressions and obsesssions, fears and anxiety. marked solitariness and timidity, hysteria and amnesia.

(2) Habit disorders—such as speech defects, excessive day dreaming, nail biting, physical symptoms such as asthma and allergies.

(3) Behaviour disorders—such as temper tantrums defiant, aggressive, stealing, lying, truancy and sex abberations.

(4) Organic disorders—such as neurological disfunctioning—head injuries, brain tumours, epilepsy.

(5) Phychotic disorders—such as hallucinations, delusions and bizarre behaviour.

(6) Educational and vocational difficulties—such as lacking concentration, slow learning (retarded in reading particularly), irregular response to school discipline and unable to hold down a job.

Maladjusted Cases

In a common class room, some children may reveal the presence of some of the above symptoms, without it necessarily signifying maladjustment (e.g. sleep problems, biting nails, facial twitch etc.). But when these symptoms accumulate, we normaly have a maladjusted case in our hands.

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Causal factors of Maladjustment :

Besides organic disorders, factors relating to family school, neighbourhood, peer relationships etc. serve as causal factors of maladjustment. Inability to cope with school work or unfriendly teachers are very often found to breed maladjustment. Some individuals are predisposed to maladjustment. Frustration and strained relationships between parent and child, teacher and child or between the children will influence some children more than others.

Suggestions :

The following suggestons may be helpful in overcoming the above mentioned difficuties arising from malajustment.

(a) Taking effective steps to identify the causes of maladjustment-close liaison between the school and home, to discover the background to the child's problems. Involvement of psychologists, psychataic social workers etc. would be very helpful in determining possible causes and in some cases preventing from worsening.

(b) Giving the child, lessons and treatment in keeping with the causes (at school or at clinic).

(c) sending the child to residential special school for the maladjusted (designed to provide a therapeuttc environment), where the home is clearly not suitable in its influence on the emotional development of the chiid.

(d) Giving remadial help for cases of retarded mental development.

THE SOCIAL AND THE CULTURAL HANDICAPS

Children from deprived backgrounds or children with some 'social disadvantages' like the delinquents, orphans and the destitutes can be included in this group. Delinquent children are in a somewhat unfortunate pisition in that their 'disabilities' are also a source of antisocial behaviour. Fortunately their plight is rarely permanent and our job must be to make sure that the passage of young people through difficult times of behavioural deviance is quick and complete. An insight into the characteristics of the disadvantaged children will be helpful in this context.

Characteristic of the Disadvantaged Children

The following are the major characteristics of the disadvantaged children:

(i) poverty and inadequate care often mean cramped and impoverished llving conditions, overcrowding, low income (and pressure on children to start earning) and feelings of insecurity;

(ii) restrictions in language experience often disable the child from a working-class home when he comes to forming abstract concepts. The character of the language and content are obvious barriers to scholastic sucess.

(iii) sensory deprivation is often the case in homes with little in the way of sensory stimulation (shortage or absence of toys or surrounding objects offering some variety of stimulations)

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(iv) lock of perseverence in schoolwork. A hedonistic outlook is very common. Not prepared to accept what is termed as 'delayed gratification.'

(v) parental attitude to school and a clash ef values between children and their schools often gives rise to disillusionment and reduced motivation to do school work.

(vi) emotional deprivation arising from inconsistent and inconsequential parents, broken families or loss of parent can give rise.

(vii) large families sometimes produce a greater possibility of poverty, language deprivation (parents have not the same opportunity to converse with their children and their children and there will be more communication between less verbally mature siblings). Research studies as those of Nisbet report a correlation between IQ. and family size.

(viii) children from socially deprived homes tend to develop poor self-images.

Compensatory Progrommes as Special Pducational Erovision

To cope with the social and cultural casualities faced by children a series of programmes which are referred to as 'compensatory education' are devised to emphasize strategies in the presentation of content designed within a conducive atmosphere and aimed at counteracting the disadvantage of the social background.

Some programmes emphasise language habits and use drill metoods in order to create a firm foundation for symbolic reasoning. Another approach abopts the developmental stages postulated by Piaget with the emphasis on cognitive development to ensure that the child's progress is paced and punctuated with active participation in learning.

The programmes, to be effective should have the following objectives in common:

(i) providing opportunities for enrichment in language, perceptual and social skills -plenty of talk about stimulating objects and events, tape recordings, films, visits to places of interest to children, and abundant opportunity for reading materials etc. Schools must offer a stable and secure atmosphere, a place, where children want to be and to work.

(ii) providing opprtunities which strive for personal standards and development in terms of cleanliness and social behaviour. An adquate self image is to be fostered through encouragement and the feel of success.

AUTISTIC CHILDREN : CHILDREN WITH SPECIFIC HANDICAP

Autism has only recently been isolated as a specific handicap. The most recent view as to its nature and causes is that autism is caused by a disability in interpreting sensory experiences, particularly hearing and seeing. Symbol interpretation is especially difficult. Since autistic children lack the ability to symbolize, they have difficulty in acquiring language. Lack of contact (either with eyes or in speech) between the child and others is the most others (even parents) is the most conspicuous symptom of autistic children. Speech, if at all there is, is grossly retarded and unusual (echolalia' where the child repeats something which has just been said). Excessive and persistent movement is also characteristic of autistic children.

Autistic children ignore some perceptual experiences (sight and sounds even heat

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and pain) while other perceptual experiences (music and regulate beats) seem to have hynotic effect on them.

Special Educational Provision

Special educational provision for autistic children has not been clearly designed so far, since there is uncertainty as to the assistance which can be fruitfully afforeded to these children. However, two major recommendations that have been put forth by experts in the field are noted below:

(i) Since it is supposed that autism involves impaired perceptual interpretation in mainly the visual and hearing modalities, it would seem appropriate to explore other senses-touch, movement, olfaction.

(ii) a stable environment where a close watch can be kept on the child to capitalize on those sensory channels which he can appreciate may prove to be rewarding.

Conclusion

The above discussions are broadly indicative of the educational and other possibilities for dealing with problem children. This is a most important area in which very little work has been done in India. The democratic conception of the innate worth of the human individual and the obligation of society to provide facilities for his optimum growth, both force on use the need for some rethinking and sustained action in this respect. Let us hope that Indian educators and the public will understand the implications of the special education for the problem children and come out with action programmes of a lasting nature.

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EFFECTIVENESS OF GAMES FOR BUILDING LISTENING SKILLS

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INTRODUCTIN

Listening, speaking, reading and writing are the four fundamental skills of communication. Of these four skills listening and reading are called receptive skills, while the two skills namely speaking and writing are called the expressive skills. Of these, listening is the first skill that the child begins to use after his birth. Therefore the superstructure of other skills are based upon listening. Learning takes place because of the interaction and involvement of these skills in the teaching learning process.

It will not be an exaggeration to say that in our class-room the students spend more time to listening activity than other activities like reading, speaking and writing. This is found so particularly in higher classes of schools and colleges. It is therefore very essential to stress and develop this skill from the beginning of the formal education, that is, from pre-primary education and be continued at all stages of edueation. In this connection, it could be said that in the early years of school the language is taught with the objectives of developing these skills, but it is quite regretting to note that no sincere, systematic and scientific attempt is being made to develop these skills. The growth and development of these skills is by and large left to nature after making little beginning and efforts. Though listening is the basic piece of tool of communication used in the class-room and social life, it is more or less a neglected area of research in our country.

Besides this, the importance of the listening skills could very well be pointed out by analysing the time spent by adult in social life and pupils in class-room. The study carried out by Rankin with 68 adults as sample revealed that 45% of the total time devoted to communication was spent in listening, 30% in speaking, 16% in reading and 9% in writing. The study carried out by Wilt with elementary school children from grade I to VI in nineteen class-rooms, revealed that the children were expected to listen 57 $\frac{1}{2}$% of the time they spent in class-room, the median daily time being 858 minutes. Similar study by Bird with female college students also revealed that more time was spent in lisrening than other skills. These are the findings of researches carried out in developed countries where more instructional aids are available. In this context, one can imagine the situation of the class-room of our country where very few instructional aids are available excpt the text book. Therefore, it was thought whether listening skill could be improved by developing and using appropriate and adequate exercises. Here an attempt is made to develop a few games to develop this skill.

*The author acknowledges with thanks the assistantship given by Miss. Kalpna Patel in conducting the experiment.

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Objectives :

The following are the objectives of the present study :

1. To compose and tryout a few games which could modify listening skill.
2. To find out the practicability of the gmaes.
3. To study the impact of listening games on listening comprehension in Gujarati.
4. To find out the minimum time to be devoted to games for improving listening comprehehsion.

Limitation :

The study is confined to pupils of class VIII of rurban high schools of semi urban area.

Procedure :

In order to study the objectives 'Equivalent Group' method was contemplated. For the the formation of equivalent groups initially 117 pupils for divisions of class VIII were given a listening comprehension test in Gujarati. On the basis of the scores made by pupils on listening comprehension test, the classes were matched for Mean and SD. Four divisions were matched and these four division were then divided into two pairs of equivalent group one group was treated as experimental group and the other as the control group. Thus there were two experimental groups and two control groups. The schools were selected from rurban area of Kheda district. Table-I gives the idea of the initial means of the groups involved in the study.

TABLE-I—Mean, S.D., and Mean difference of scores made by pupils of Class VIII on pre-test (Listening Comprehension test).

Replications	No. cases	Mean	S.D.	Mean diff.	C.R.	Remarks
1 Girls	29	36·25	9·40	2·15	2·29	Insignificant
	30	38·40	8·10			
2 Boys	24	35·30	10·90	2·15	0·87	Insignificant
	34	33·15	6·36			

The table-I reveals that the obtained CR's are not significant at any level. Therefors it was assertained that the groups are initially equal with regard to listening comprehension in Gujarati. The steps that were taken to study the objective are described hereafter.

Listening Games :

The main task was to compose the games which could help to develop listening

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comprehension. For this, it was decided to find out factors which affect the listening comprehension. The factors which affect the listening are as under :

1. Discrimination of sounds.
2. Attention.
3. Immediate auditory memory span.
4. Interest.
5. Hearing (auding)
6. Practice

Out of these six factors, the fifth one was not taken into consideration for composing gams because hearing is by and large a physiological process and cannot be improvde through games. The sixth one is a factor which deals with implementing the games and other practices to improve listening. Eight games were composed keeping in view the remaining four factors. Two games were composed on discrimination of sound and recognizing the line of a poem or song played on a harmonium. Three games were composed for giving practice to concentrate that is to develop the power of concentration. One game composed to develop the auditory immediate memory span. One was composed to listen attentively and comprehend the meaning of the word immediately. These eight games were got cyclostyled after trying them out on a small group of pupils.

After finalising the games, the second question before the investigator was to select the valid and reliable test for measuring listening comprehension. The test constructed and standardized by the present author for measuring listening comprehension in Gujarati for pupils of Class VIII, IX and X under the research project sanctioned by the NCERT, New Delhi was selected for the purpose. At present there is no other test available in the market. The description of the test is given with a view to acquanting the readers with the nature of the test.

(a) General Description of Listening Comprehension Test :

There are six sub-tests. The first one is the practice test. The listening material for answering the questions of all the sub-tests is to be presented with the help of the tape recorder with an appropriate speed of delivery of words per minute. In all there are 72 items which test the following components of listening comprehension :

i. significant details of what is listened,
ii. the sequence of events or ideas presented,
iii. the main idea or the caption of the thing listened,
iv. meaning of the works in context,
v. relationship between ideas presented the drawing conclusions.

The total time that would be required to administer the test is 75 minutes.

Psychometric Properties :

The test is standardized over a sample of 946 pupils of class VIII. The reliability of the test determined by split-half method, test-retest method and K. R. Formula-21 is ranging between $0{\cdot}73 \pm 0{\cdot}05$ to $0{\cdot}83 \pm {\cdot}03$. The test has a good concurrent validity, construct validity and factorial validity. Thus the test used for measuring listening comprehension is quite reliable and valid.

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Treatment given to groups :

There were two replications of the experiment. Hence there were two experimental groups and two control groups. The control groups were not given any treatment that is any training to improve listening comprehension. The pupils of the experimental groups were given treatments for building listening skills through games. Two periods a week were devoted for the games to be played by pupils. This means that 80 mts. training or treatment was given to pupils of experimental group per week. The treatment was continued for eight weeks. Thus in all the treatment was given for 10 hours and 40 minutes. But treatment period was distributed over eight weeks. After the treatment the pupils of both the groups were administered the listening comprehension test in Gujarati.

Analysis of the Data :

The data thus obtained were analysed to study the effect of games on listening comprehension by using ANOVA.

TABLE-II—Analysis of Variance for Adjusted Sum of Squares.

Sources	df	Sum of sqnares	M.S.	F
Treatment (Adjusted)	1	4627·94	4627·94	89·48
Error (Adjusted)	114	5895·17	51·72	
Treatment+Error	115	10523·11		

Regression S.S. (Treatment+Error) = 1297·23

Regression Coeff. (Error lines) = 0·38

Experimental Mean = Y_e (adjusted) = 51·83

Control Mean Y_c (adjusted) = 40·34

df 1/114 at 0·01 level = 6·84

$F_o > F$ at ·01 level

The study of table-2 reveals that F_o (89·48) for exceeds the table F at ·01 level (6·69). Therefore the F is highly significant. This leads to reject the null hypothesis. It could therefore be concluded that the treatment given to pupils of experimental group has proved effective. The games that were composed for developing listening skills have definitely played a positive role in improving listening comprehension.

Study of Different Replications :

There were two replications of the whole experiment. These replications were designed with a view to nullifying the descripencies that might have crept in an experiment in the process of equating the groups or assigning the treatments to the group.

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Further the replications were not stereotyped but variegated according to the nature of the groups of pupils based on sex. Thus there was one replication for boys and the other for girls. In order to study these replications the data was subjected to *t*-test techniques. The null hypotheses were formulated. The relevant data are presented in table-III.

TABLE-III—Mean, SD, Mean Difference of scores made by girls and boys of control and experimental groups.

Replications	No. of subjects	Mean	S.D.	Mean diff.	C.R.	Remarks
1. Girls	29*	51·10	7·50	9·45	13·31	Highly Significant
	30*	41·65	7·05			
2. Boys	34*	51·40	6·15	11·95	14·23	Highly Significant
	24	39·40	12·15			

*Experimental Group

The mean differences of the two replications are 9·45 and 11·95 respectively. These mean differences are very highly significant. This leads to conclude that the treatment given to each of experimental group of the two replications has proved effective. The games could be utilised for improving listening skills that is listening comprehension.

Conclusions and Observation :

From this micro-experiment it could be concluded that the games for building listening skills are found effective for improving listening comprehension. The adjusted mean of the control group is 40·34 and that of the experimental group is 51·83. Thus there is a mean gain of 11·49 and it is in favour of experimental group. The games used for building listening skills helped to improve listening comprehension to the extent of about 28·4 per cent. Thus the gain of 28·4 percent in listening comprehension could purely be attributed to games.

Besides this, certain other observations were also made during the experimental stage. The pupils liked all the games very much except one. The gums based on discrimination of sound was disliked by majority of the pupils. For other games, the teacher was also of the opinion that the pupils were playing the games with interest and they were putting sincere effort to do better in the next game. From discussion it could be said with confidence that listening skills could be modified by evolving and implementing approaches.

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FAMILY DYNAMICS OF SCHOOL DROPOUTS

(BURNING PROBLAM OF INDIAN PRIMARY EDUCATION)

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PARENT-CHILD RELATIONSHIP AS A FUNCTION OF FAMILY-SIZE, SOCIO-ECONOMIC STATUS AND CULTURAL SETTING

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INTRODUCTION

Parents are a vital source of the satisfaction of his physical needs whether the child is weaned early or late; founded or ignored, praised or rebuked, is relatively less important then the beliefs, attitudes and broad pre-dispositions he acquires from his parents. He receives a firm set of guiding values by pereceiving them expressed and endorsed by both his mother and his father.

Psychologists have been engaged in the multifarious problems of parent-child relationship for the past half a century but soon they recognized the complexities of the problem and were led to development of theories, sophistication of research strategies and refinement of measuring instruments. However, these efforts were not satisfactorily fruitful.

The past several years witnessed a rather sharp decline in number of studies on parent-child relationship. The situation in India remained still worse. Parmeswaran (1972) surveyed 120 studies on developmental psychology in the ICSSR publication and found that only three of them related to parent-child relations. He aptly remarks that, "paent-child relaiions, which have been extensively investigated in the U.S.A., has received little attention from Indian research workers. The present project is an humble attempt to fill this gap.

This phenomenon may partly be frustrations of the researchers in this field when one begins to tolerate the research evidence by various researchers, he is immediately confronted with difficulties. For example, both the antecedent and consequent variables ware defined differently from researcher to researcher and subjects ware diffeaent among studies in such important respect as age, sex, socio-rconomic status, cultural setting, family size and so on. Consequently, one cannot be certain whether two studies reporting seemingly the same antecedent and consequent relations are indeed in agreement with each other, and whether two findings which disagreee with each other are indeed incompatible with each other.

OBJECTIVES OF THE STUDY

The need for giving order to this situation gave impetus for undertaking the present research project. The objectives of the study are as under:

(1) To study the individual as well as collective impact of family size, socio-economic status and cultural setting on the eiget dimensions of parent-child relationship in the families of primary school going boys.

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(2) To study the first order and second order interactions among the above three independent variables as they influence each dimension of parent-child relationship.

(3) To study the individual as well as collective impact of family size, socio-economic status and cultural setting on the eight dimensions of father-child relationship in the families of primary school going boys.

(4) To study the first order and second order interactions among the above three independent variables as they influence each dimension of father-child relationship.

(5) To study the individual as well as collective impact of family size, socio-economic status and cultural setting on the eight dimensions of mother-child relationship in the families of primary school going boys.

(6) To study the first order and second order interactions among the above three independent varisbles as they influence each dimension of mother-child relationship.

(7) To study the above impacts and interactions for dropout and non-dropout families separately.

METHODOLOGY AND DESIGN

The antecedent variables of parent-child relationship studied in this place of research are family size, socio-economic status and cultural setting. Age has been resticted to primary school going children and sex to boys only. The consequent variable is dropout behaviour of the children. Numerous dimensions of parent-child relationship have been investigated by various researchers. The following eight dimensions, on the basis of their importance, have been chosen for the present study :—(1) acceptance-rejection, (2) dominance-submissinn, (3) encouragement, (4) love-hate, (5) democracy-authoritarianism, (6) trust-distrust, (7) reward-punishment, and (8) tolerance-hostility.

A test entitled 'Parent-child Relation Test' has been constructed and standardised for this study. It measures the aforesaid eight dimensions of parent-child relationship, on the basis of responses given by fathers and mothers. The final sample of the study comprises 720 parents, i.e., 360 mothers equally representing dropout and non-dropout families. This number evenly fits into 18 cells of 3x3x2 factorial design of the study.

The study has been done in three main phases. The first phase studies the impact of family size, socio-economic status and cultural setting on the eight dimensions of parent-child relationship (father and mother combined), the second phase studies father-child relationship and the third phase studies mother-child relationship. Each main phase is again sub-divided into three sub-phases. Parent-child phase, for example, studies family in general, i.e. dropout plus non-dropout families in the second sub-phase. Similarly father-child phases are also sub-divided into three sub-phases each. There are nine sub-phases in all. Each of the nine sub-phases studies eight dimensions of parent-child relationship. There are, thus, $9 \times 8 = 72$ factorial expeaiments. Each experiment empirically verifies 7 hypotheses, three for main effects, three for first order interaction and one for second order interaction. Thus, the studies seeks verification of 504 hypothese in all.

RESULTS, DISCUSSION AND CONCLUSION

The main findings and their discussion are given on next page ;

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(A) FAMILY SIZE

(1) *Accdptance-Rejectiyn Dimension*—(a) Parents accept their children, both dropout and non-dpopout more when family size is large then when it is medium but reject them when it is small. Parents accept their dropout children more when family size is large but reject them more when family size is small than when it is medium.

(b) Fathers having large families accept their children, both dropout and non-dropout, more than those having medium size families do, who, in turn, accept their children more than those having small size families do. Fathers having large and medium size families accept their dropout children more than those having small families do. Fathers having large families accept their non-dropout children, whereas those having either medium or small families reject their non-dropout children.

(c) Family size has significant impaction mother child relationship. Mothers having large families accept their children, both dropout and non-dropout, more than those having medium size families. Mothers having small families reject their children whether dropout or non-dropout. Mothers having large families accept their dropout children more than those having either medium or small size families do. Mothers having large families accept their non-dropout children but mothers having either medium or small size families reject their nondropout children.

(2) *Dominance-Submission Dimension*—(a) Parents having large families dominate their children, both dropout and non-dropout, more than those having either medium or small families. Parents having large families dominate their dropout children more than those having either medium or small size families. Parents having either large or medium size families dominate their children more than those having small families.

(b) Fathers having large families dominate their children, both dropout and non-dropout, more than those having medium size families do, who in turn, dominate their children more than those having small families do. Fathers having large, medium or small size families do not differ significantly from each other in dominating their dropuut children. Fathers having large or medium size families dominate their non-dropout children more than those having small families do.

(c) Mothers having large families dominate their children, both dropout and non-dropout, more than those having either medium or small size families, This is equally true for dropout and non-dropout children separately.

(3) *Reward-Punishment Dimension*—(a) Parents having large families reward their dropout children signiflcantly more than those having small families do. No such signiflcant difference is found for non-dropout children.

(b) Fathers having large, medium or small size families do not differ in rewarding or sunishine their dropout or non-dropout children.

(c) Mothers having large families reward their children, in particular, more than those having medium size families do, who, in turn, do so more than those having small size families. Mothers having large families reward their non-dropout children more than those having small familes do.

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(4) *Tolerance-Hostility Dimension*—(a) Parents having large and medium size families tolerate their children, both dropout and non-dropout, more than those having small families do. Parents having large families tolerate their dropout children more than those having medium size family do, who, in turn, do so more than those having small families do. Parents having large or medium size fsmilies tolerate their non-dropout children but those having small families are hostile toward their non-dropout children.

(b) Fathere having large, medium or small size families do not differ significantly from each other in showing tolerance and hostility toward their dropout and non-dropout children.

(c) Mothers having large families tolerate their dropout children more than those having medium size families do, who, in turn, do so more than those having small families. No such significant difference is found in their relation with non-dropout children.

(5) *Encouragement-Discouragement Dimension*—(a) Parents having large families encourage their dropout children significantly more than those having small families do. No such significant difference is found in their relation with non-dropout children.

(b) Fatheir having either large or medium size families encourage their children, dropout and non-dropout both, more than those having small families do. Nevertheless, when we look at this father-child relationship for dropout and non-dropout children separately, we do not find any signiflcant difference.

(c) Mothers having small families encourage their non-dropout children significantly more than those having medium size families do. No such signiflcant difference is found in their relation with dropout children.

(B) SOCIO-ECONOMIC STATUS

(1) *Dominance-Submission Dimension*—(a) Parents belonging to high socio economic status dominate their non-dropout children more than those belonging to low socio-economic status do. No such difference is found in parent-child relationship among dropout families.

(b) Fathers belonging to high, middle or low socio-economic status do not differ from each other signiflcantly in their dominance-sudmission behaviour toward their dropout or non-dropout children.

(c) Mothers belonging to either high or middle socio-economic status dominate their dropout children more than those belonging to low socio-economic status do. Mothers belonging to high socio-economic status dominate their non-dropout children more than those belonging to either middle or low socio-economic status do.

(2) *Encouragement-Discouragement Dimension*—(a) Parents belonging to low socio-economic status encourage their dropout children significantly more than those belonging to high socio-economic status do. No such difference is found in the relationship of parents with their non-dropout children.

(b) Fathers belonging to high, middle or low socio-economic status do not differ from each other significantly so for as their encouragement-discouragement behaviour with either dropout or non-dropout children is concerned.

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(c) Mothers belonging to low socio-economic status encourage their children, in general, and dropout children, in particular, more than those belonging to either high or middle socio-economic status do. There is no such significant difference in their relation with non-dropout children.

(3) *Tolerance-Hostility Dimension*—Mothers belonging to middle or low socio-economic status tolerate their children, in general, more than those belonging to high socio-economic status do. When we trace dropout and non-dropout families separately this differential behaviour vanishes.

(C) CULTURAL SETTING

The findings about acceptance-rejection, love-hate, democracy-authoritarianism, trust-distrust, reward-punishment and tolerance-hostility dimension indicate very clearly to the impact of cultural setting on parent-child relationship. Rural parenrs, who are generally themselves illiterate, do not give any importance to education of their children. They anxiously wait for the day when their children, physicaally healthy and strong, would grow old enough to lend them a helping hand in tilling their farms and cultivating crops. Education is unnecessary and unwanted, as it creates in their children an aversion for their traditional agricultural vocation, (Mead, 1959; Breckenidge, M.E. and Wrient, E.L.., 1965).

The urban parents, on the other hand, are mostly themselves educated. They consider higher education as the only source of prosperity for their children. They motivate their young children to excel in educational field and paepare for some specialized field in order that they may occupy a respectable positon in society and earn praise in addition to their livelihood. Higher education is a social and economic security for their children, (Henry, J., 1947).

We aptly find that rural fathers show accepting, dominating, democratic, trusting, rewarding and tolerating attitudes toward their dropout children, (Marlin, W. E. and Stendler, C.B., 1959), whereas urban fathers show rejecting, submitting, authoritarian, distrusting, punishing and hostile attitudes toward their dropout children. Rural and Urban parents do not differ significantly in these dimensions of father-child relationship with their nhn-dropout children. This is an indicator or aversion for education among rural fathers and preference for edvcetion among urder fathers. Rural fathers love their dropout children significantly more than urban fathers do. It shows that urban parents do not hate their children but they offer a limited quantity of love to their dropout children. A peculiar finding in father-child relationship is that rural parents encourage their dropout as well as non-dropout children but they encourage their dropout children much more than their non-dropout children.

Each dimension of parent-child relationship constitutes two poles of an attitude continuum—one positive, another negative. We find that mothers, whether rural or urban, do not touch the negative side of the continuum, (Englemonn, W. 1962). Rural mothers are extremely on the positive side while urban mothers are near the center but definitely on the positive side. Rural mothers, for example, show toward their dropout children high attitude of acceptance, encouragement, love, democracy, trust, reward and tolerance. Urban mothere also do so but within narrow limits. This indicates toward the tenderness of emo-

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tionality in mothers for their children on the one hand and cultural differences in child rearing practices, particularly in educating their children on the other.

(D) THE FIRST ORDER INTERACTION BETWEEN FAMILY SIZE AND SOCIO-ECONOMIC STATUS

(1) *Acceptance-Rejection Dimension*—(a) Parents belonging to high socio-economic status accept their children, both dropout and non-dropout, more when family size is large than when it is medium and reject them when family size is small. Parents belonging to either middle or low socio-economic status accept their children most when family size is large, moderately when it is small and least when it is medium.

(b) Parents belonging to high socio-economic status accept their non-dropout children when family size is large but reject them more when it is small than when it is medium. Parents belonging to middle socio-economic status accept their non-dropout childrdn when family size is large but reject them more when family size is medium than when it is small. Parents belonging to low socio-economic status accept their non-dropout children more when family size is medium.

(c) Fathers belonging to high socio-economic status accept their children, both dropout and non-dropout, more when family size is large lhan when it is medium but reject them when family size is small. Fathers belonging to middle socio-economic status accept their children more when family size is large than when it is small, but somewhat reject them when family size is medium.Fathers belonging to low socio-economic status accept their children most when family size is large, moderately when it is small and least when it is medium.

(2) *Dominance-Submission Dimension*—(a) Parents belonging to either high or middle socio-economic status dominate their children, dropout and non-dropout both, most when family size is large, moderately when it is small and least when it is medium. Parents belonging to low socio-economic status dominate their children most when family size medium, moderately when it is large and least when it is small.

(b) The above statement is more applicable to relation of parents with their drop-out children.

(b) The above statement is more applicable to relation of parents with their drop-out children.

(c) Parents belonging to high and middle socio-economic status dominate their non-dropout children most when family size is large, moderately when it is medium and least when it is small. Parents belonging to low socio-economic status dominate their non-dropout children more when family size is medium than when it is large but submit to them when family size is small.

(d) Statement in (a) above is also applicable to relationship of fathers with their children both dropout and non-dropout.

(e) Mothers belonging to high socio-economic status dominate their children, both dropout and non-dropout, most when family size is large, moderately when it is medium

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and least when it is small. Mothers belonging to middle socio-economic status dominate their children most when family size is large, moderately when it is small and least when it is medium. Mothers belonging to low socio-economic status dominate their children most when family size is medium, moderately when it is large and least when it is small.

(f) Mothers belonging to high socio-economic status dominate their non-dropout children most when family size is large, moderately when it is small and least when it is medium, Mothers belonging to mindle socio-economic status dominate their non-dropout children most when family size is small. moderately when it is large and least when it is small. Mothers belonging to low socio-economic status dominate their non,dropout children most when family size is large, (Bossard, J.H.S., 1956), moderately when it is medium and least when it is small.

(3) *Encouragement-Discouragement Dimension*—(a) Parents belonging to high socio-economic status encourage their children, both dropout and non-dropout, more when family size is medium than when it is small, but discourage them when family size is small. Parents belonging to middle socio-economic status dominate their children most when family size is medium, moderately when it is large and least when it is small. Parents belonging to low socio-economic status dominate their children most when family size is large, moderately when it is small and least when it is medium.

(b) Parents belonging to high socio-economic status encourage their dropout children most when family size is large, moderately when it is small. Parents belonging to middle socio-economic status encourage their dropout children most when family size is medium, moderately when it is large and least when it is small. Parents belonging to low socio-economic status dominate their non-dropout children wore when family size is large than when it is medium but discourage them when it is small.

(c) Mothers belonging to high socio-economic status encourage their children, both dropout and non-dropout, most when family size is small. Mothers belonging to middle socio-economic status encourage their children most when family size is medium, moderately when it is small and least when it is large. Mothers belonging to low socio-economic status dominate their children most when family size is large, moderately when it is small and least when it is medium.

(d) Mothers belonging to high socio-economic status encourage their dropout children more when family size is large then when it is small. Mothers belonging to middle socio-economic status encourage their children most when family size is medium, modeiately when it is small and least when it is large. Mothers belonging to low socio-economic stats encourage their children most when family size is large, moderately when it is small and least when it is medium.

(e) Mothers belonging to high socio-economic status encourage their non-dropout children more when family size is medium than when it is small, but discourage them when it is large. Mothers belonging to middle or low socio-economic status encourage their non-dropout children more when family size is large than when it is small but discorage them when it is medium.

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(4) *Democracy-Authoritarianism Dimension*—Fathers belonging to high socio-economic status show authoritarian attitude toward their non-dropout children more when family size is small then when it is large, but democratic attitude when family size is medium. Fathers belonging to middle socio-economic status show democratic toward their nou-dropout children when family size is either large or small but authoritarian attitude when family size is medium. Fathers belonging to low socio-economic status show democratic attitude most when family size is small, moderately when it is large and least when it is medium.

(5) *Trust-Distrust Dimension*—(a) Parents belonging to high socio-economic status trust their children, both dropout and non dropout, when family size is either large or medium but distrust them when it is small. Parents belonging to middle socio-economic status trust their children more when family size is either large or small than when it is medium. Parents belonging to low socio-economic status trust their children most when family size is small, moderately when it is large and least when it is medium.

(b) Parents belonging to high and middle socio-economic status trust their dropout children most when family size is large, moderately when it is medium and least when it is small. Parents belonging to low socio-economic status trust their dropout children most when family size is small, moderately when it is large and teast when it is medium.

(c) Mothers belonging to high or middle socio-economic status trust their dropout children most when family size is large, moderately when it is medium and least when it is small. Mothers belonging to low socio-economic status trust their dropout children most when family size is small, moderately when it is large and least when it is medium.

(6) *Reward-Punishment Dimension*—Mothers belonging to high or middle socio-economic status reward their non-dropout children more when familly size is medium than when it is large, but puuish them when family size is small. Mothers belonging to low socio-economic status reward their non-dropout children when family size is large but punish them when family size is medium or small.

(7) *Tolerance-Hostility Dimension*—Parents belonging to high or middle socio-economic status tolerate their dropout children most when family size is large, moderately when family size is medium and least when family size is small. Parents belonging to low socio-economic status tolerate their dropout children most when family size is large, moderately when it is small and least when it is medium.

(E) FIRST ORDER INTERACTION FAMILY SIZE AND CULTURAL SETTING

(1) *Acceptance—Rejection Dimension*—Rural fathers accept their non-dropout children more when family size is large than when it is small, but reject them when it is medium. Urban fathers reject their non-dropout children more family size is small than when it is medium but accept them when it is large.

(2) *Domission—Submission Dimension*—(a) Rural parents dominate their non-dropout children most when family size is medium, moderately when it is large and least

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when it is small. Urban parents dominate their non'dropout children most when family size is large, moderately when it is small and least when it is medium.

(b) Rural fathers dominate their non'dropout children most when family size is medium, moderately when it is large and least when it is small. Urban fathers dominate their non'dropout children more when family size is large than when it is small or medium.

(c) Rural mothers dominate their non'dropout children most when family size is medium, moderately when it is large and least when it is small. Urban mothers dominate their non'dropout children when family size is large, moderately when it is small and least when it is medium.

(3) *Democracy—Authoritarianism Dimension*—(a) Rural parents show democratic attiude toward dropout children most when family size is large, moderately when it is small and least when it is medium. Urban parents show democratic attitude toward their dropout children when family size is medium but autocratic attitude when it is either large or small.

(b) Rural fathers show democratic attitude toward their non-dropout children when family size is either small or medium but autocratic attitude when it is large. Urban fathers show democratic attitude toward their non-dropout children more when family size is large than when it is medium, but authoritarian attitude when it is small.

(c) Rural mothers show democratic attitude toward their dropout children more when family size is large than when it is either small or medium. Urban mothers show democratic attitude more when family size is medium than when it is large but authoriarian attitude when it is small.

(4) *Trust—Distrust Dimension*—Rural fathers trust their non-dropout children more when family size is medium than when it is small, but distrust them when family size is large. Urban parents trust their non-dropout children more when family size is large than when it is medium but distrust them when it is small, (Katz and Rolter, 1969).

(5) *Tolerance—Hostility Dimension*—Rural parents tolerate their dropout children more when family size is large than when it is medium, but show hostility toward them when family size is small. Urban parents tolerate their dropout children more when family size is small than when it is either large or medium.

(F) FIRST ORDER INTERACTION BETWEEN SOCIO—ECONOMIC STATUS AND CULTURAL SETTING

The influence of first order interaction between socio-economic status and cultural setting on acceptance-rejection dimension is significant in mother-child relationship among dropout families. Rural mothers accept their dropout children most when family size is small than when it is either medium or large. Urban mothers accept their dropout children more when family size is either large or medium than when it is small.

The first order interaction between socio-economic status and cultural setting

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does not influence any of the remaining seven dimensions of parent-child relationship at all.

(G) SECOND ORDER INTERACTIONS BETWEEN FAMILY SIZE, SOCIO-ECONOMIC STATUS AND CULTURAL SETTING

The second order interaction among family size, socio-economic status and cultural setting has shgnificant effect on acceptance-rejection dimension of parent-child relationship and father-child relationship in the families of non-dropout children.

(1) Keeping in view the fact that family size and cultural setting have significant main effect on acceptance-rejection dimension of parent-child relationship, it may be added, that rural parents accept their non-dropout children most when their family size is large and socio-economic status is low ; whereas urban parents do so when family size is large and socio-economic status is high. The rural parents reject their non-dropout children most when family size is medium and socio-economic status is low ; whereas urban parents do so when family size is small and socio-economic status is high, (Balwin, Kalhorn and Breese, 1945).

(2) Keeping in view the fact that family size and cultural setting have significan effect on acceptance'rejection dimension, it may be added, on the basis of second order interaction, that highest acceptance is shown by rural fathers when their family size is large and socio-economic status is low ; whereas it is done so by urban fathers when family size is large but socio'economic status is high. The highest rejection is shown by rural fathers when family size is medium and socio'economic status is middle ; whereas it is done so by urban fathers when family size is small and socio'economic status is high.

The above findings are applicable more to fathers of non'dropout children than to mothers.

(3) (a) Keeping in view the facts that rural parents dominate their dropout children more than urban parents do, and that large and medium size family parents dominate them more than small family parents do, it may be added, on the basis o second order interaction, that highest dominance is shown by rural parents when they belong to high socio-economic status and have a large family; whereas it is done so by urban parents when socio-economic status is low and family size is large. The lowest dominance is shown by rural parents when they belong to sigh socio-ecnomic status and have medium size family; whereas it is done so by urban parents when they belong to low socio-economic status and have small family.

(b) Keeping in view the fact that the main effect of family size is significant, it may be added, on the basis of second order interaction, that rural fathers dominate their non-dropout children most when family size is medium and socio-economic status is slow ; whereas urban fathers do so when family size is large and socio-economic status is high. Rural fathers are most submissive to the non-dropout children when family is small and ssocio-economic status is low ; whereas urban fathers are so when family is large and socio-economic status is low.

(c) Keeping in view the fact that family size and socio-economic statas have

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significant main effect on dominance-submission dimension, it may be added, on the basis of second order interaction, that rural mothers show highest dominance toward their dropout children when socio-economic status is high and family is large; whereas urban moshers do so when socio-economic status is middle and family is large. The highest submission is shown by rural mothers when socio-economic status is low and family is large; whereas it is done so by urban mothers when socio-economic status is low and family is small.

(d) Keeping in view the fact that all the three independent variables have significant impact on dominance-submission dimension, it my be added, on the basis of second order interaction, that rural mothers dominate their non-dropout children most when socio-economic status is high and family size is medium; whereas urban mothers do so when socio-economic status is high and family is large. Rural mothers submit to their children most when socio‘economic status is middle and family size is medium; whereas urban mothers do so when socio-economic status is high and family size is medium.

(4) (a) Keeping in view the fact that rural parents love their dropout children significantly more than their urban counterparts do, it may be clarified, on the basis of second o rder interaction, that rural parents love their dropout children most when they belong to middle socio‘economic status and have large family; whereas urban parents do so when they belong to low socio-economic status and have large family, (Ribble, 1943; Spitz, 1945). Rural parents love their dropout children least when their socio-economic status is high and family size is small; whereas urban parents hate their dropout children most when theie socio‘economic status is high and family size is large.

(b) Even though none of the main effect is significant, it may be added, that highest love is shown by rural parents toward their non‘dropout children when their socio-economic status is low and family is large; whereas it is done so by urban parents when their socio‘economic status is high and family is large. Rural parents hate their non-dropout children most when their socio-economic status is high and family is large; whereas urban parents do so when socio‘economic status is low and family is large.

(c) Keeping in view the fact that culural setting has significant main effect on love-hate dimension of mother-child relationship, il may be added, on the basis of second order interaction, that rural mothers love their dropout children most when socio-economic status is low and family is small; whereas urban mothers do so when socio-economic status is low but family is large. Rural mothers love their dropout children least when socio-economic status is high and family is small; whereas urban mothers hate them most when socio-economic status is high and family size is medium.

(d) Keeping in view the fact that none of the independent variables has any significanteimpact on love-hate dimension, it may be added, on the basis of second order interaction, that rural mothers love thelr non-dropout children most when socio-economic status is middle and family is large; whereas urban mothers do so when socio-economic status is high and family is large. Rural mothers hate their non-dropout children most when socio‘economic status is low and family is small; whereas urban mothers do so when socio-economic status is low and family is large.

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(5) (a) Keeping in view the fact that rural parents of dropout children are significantly more democratic than their urban counterparts, it may be added, on the basis of second order interaction that rural parents show highest democratic attitude toward their dropout children when socio-economic status is high and family is large; whereas urdan parents do so when socio-economic status is low, and, of course, family is large. The rural parents show lowest democratic attitude toward their dropout children when socio-economic status is high and family is small; whereas urban parents show authoritarian attitude when socio-economic status is high and family is large.

(b) Keeping in view the fact that none of the three independent variables has significant main effect, it may be added, that rural parents show extreme democratic attitude toward their non-dropout children when socio-economic status is high and family size is medium; whereas urban parents do so when socio-economic status is high but family is large. The rural parents show extreme authoritarian attitude toward their non-dropout children when socio-economic status is high and family is large; whereas urban parents do so when socio-economic status is high but family is small.

(c) Keeping in view the fact that cultural setting has significant main effect on democracy-authoritarianism dimension of mother-child relationship in dropout families, it may be added, on the basis of second order interaction, that rural mothers are most democratic toward their dropout children when socio-economic status is high and family is large; whereas urban mothers are so when socio-economic status is low and family is large. Rural mothers show highest authoritarian attitube when socio-economic status is high and family is small; whereas urban mothers do so when socio-economic status is high and family is large.

(d) Keeping in view the fact that none of the indepeendent variables has any significant impact on democracy-authoritarianism dimension of mother-child relationship in non-dropout families, it may be added, on the basis of second order interaction, that rural mothers are most democratic toward their non-dropout children when socio-economic status is low and family size is medium; whereas urban mothers are so when socio-economic status is high and family is large. Rural mothers are most authoritarian when socio-economic status is low and family is small; whereas urban mothers are so when socio-economic status is high and family is medium.

(6) Keeping in view the fact that cultural setting has significant main effect on trust-distrust dimension, it may be added, on the basis of second order interaction, that rural mothers trust their dropout children most when socio-economic status is low and family is small; whereas urban mothers do so when socio-economic status is middle and family size is medium. Rural mothers distrust their dropout childron when socio-economic status is high and family is small; whereas urban mothers trust them least when socio-economic status is low and family is large.

(7) (a) Keeping in view the fact that none of the three independent variables has significant main effects, it may be added, about the second order interaction, that rural parents reward their non-dropout children most when secio-economic status is

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middle and family size is medium ; whereas urban parents do so when socio-economic status is high and family is large. The rural parents punish their non-dropout children most when socio-economic status is high and family is large ; whereas urban parents do so when socio-economic status is high but family size is small.

(b) Keeping in view the fact that family size and cultural setting have significant main effects on reward-punishment dimension, it may be added, on the basis of second order interaction, that rural mothers reward their dropout children most when socio-economic status is high and family is large ; whereas urban mothers do so when socio-economic status is low and family is large. Rural mothers reward their children least when socio-economic status is high and family is small ; whereas urban mothers punish their dropout children most when socio-economic status is middle and family is small.

(c) Keeping in view the fact that family size has a significant impact on reward-punishment dimension, it may be added, on the basis of second order interaction, that rural mothers reward their non-dropout children most when socio-economic status is high and family size is medium ; whereas urban mothers do so when socio-economic status is high and family is large. Rural mothers punish their non-dropout children most when socio-economic status is low and family is small ; whereas urdan mothers do so when socio-economic status is middle and family is small.

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CONCLUDING REMARKS AND SUGGESTION FOR FURTHER STUDIES

When we consider the main effects of the three antecedent variables individually we find that cultural setting has the most significant effect on all the eight dimensions of parent-child relationship in almost all the situations, may it be either father's relation or mother's relation with either dropout or non-dropout children. We find that the relations are invariably superior in rural culture to those in urban culture. Parents in village adopt more positive attitudes toward their children than those in the cities do. India is an ancient country having very deep rooted traditions, customs and cultural values. Though industrialization and mechanization is changing these traditions ot a fast speed parsticularly in cities, the villages are also not the same as they were some thirty years ago. Electrification, road transport, radios, televisions and cinemas are bringing a social change in rural India. However, the rich traditions held for centuries cannot be washed away with these mechanizations. The glaring difference between urban and rural cultures still exists. Though the present project has satisfactorily dwelt upon comparative study of urban and rural cultures, it is suggested that a still deeper investigation touching positive cultural aspects should be carried out in rural area which is real India. Fruitful finding can be achieved if a consideration is given to the distance of the villages from cities, particularly tribal area, may prove a treasure of useful information.

The second most important antecedent variable is family size that has direct or indirect influence on parent-child relationship in all its ramifications. Children in large families receive more positive attitudes from their parents than those in either medium or small families. This points to the fact that parents can be classified in two categories. There are parents who are crazy for children. They indiscriminately grow large families and blindly shower their positive emotions on their children whatever their number be. They go to the extent of over-protecting and pampering their children. The other fact of this picture tells us that many children may be met with extreme negative attitude if the family size goes beyond the capacity of the parents. There are also parents who donot long for children. They strictly plan their family and show somewhat negative attitude toward their children. This fact can be verified from the finding that dropout children have parents who either over-protect and pamper them or show negative and restrictive behaviour toward them. A medium size family is a balanced family where dropout behaviour is quite infrequent.

When we look at family size in reference to cultural setting and socio-economic status, we find that high socio-economic status parents, whether rural or urban, invariably favour large families. They consider large number of children as an asset. These children, when they grow up, would rightfully inherit their huge properties and large business set-ups and reduce the painful pinch of income-tax and welath-tax.

When we add cultural setting to this picture, we find that rich parents in villages favour dropout behaviour in their children, whereas in cities they pressurize their children for higher education. Both of them are on the right path. This tells upon our educational

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system, that is looked upon as waste of time, money energy by rich rural parents. Our education system is meant, if it is so, for cities. It has no relevance to the villages and particularly agricultural vocation. It needs deep reforrmation to suit the major pupulation of out country that is born in villages and that dies there. This can easily be confirmed scientifically by launching a project to study the attitudes of rural parents toward parents' educational set up.

Socio-economic status has remained a recessive antecedent variable that has shown its main effect only in few cases. The reason is obvious. Our sample comprises primary school children. Primary education is free and compulsory in India. It boes not pose a financial problem even for the lower class parents. They can easily afford the cheap books of a primary class student once in a year, if they feel that education is useful for their children. Socio-economic status is a contributory factor when interaction with the other two variables as was seen in the previous paragraps. This fact also points to the appropriateness and excellence of a factorial experiment on which this whole study is based. An ordinary design would have rejected socio-economic status as an inactive variable as it did not have any main effect. But its importance in interaction with other variables could only as revealed by a factorial experiment that has an additional utility of telling something about interaction in addition to the main effects.

It would not be inappropriate to end this report with a word of warning to the parents. The study has very amply revealed that dropout behaviour in children, which is a carry-over phenomenon followed by truancy, delinquency and criminality, is a dropout of the extremes of the eight dimension of parent-child relationship. Too much love, for example, is as ruinous for the child as is too much hate is. It is advised that parents should follow the Aristotalian Golden Path— *i.e., Middle of the Road.*

*

FORTHCOMING TESTS

1. **Internal Assessment Scale** (English)
2. **Attitude Scale for Internal and External Examinations** (English)
3. **Attitude Scale for Reginal Language and English as media Instruction**
4. **Study Skills Inventory** (Mcasure Study Habits and Interest)
5. **Job-Satisfaction Scale** (For Higher Secondary Teachers)

Constructed and Staudardzed By
Dr. A. Venkatarani Reddy
Reader in Education S. V. University, Tirupati

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SPECIAL ISSUE

SOCIAL CLASS AND SEX AS CORRELATES OF SELF-ESTEEM

Govind Tiwari, Km. Kiran Morbhatt and Smt. Tasneem Naqvi

Agra Collge, Agra

INTRODUCTION

Self-concept or self esteem is an important psychological concept which may be defined as a concept regarding his own self, evaluation of himself, feelings he has about himself (Prasad and Thakur, 1977); as a particular kind of attitudinal structure (McDavid and Harai, 1968), as the cluster of the most personal meaning a person contributes to the self (Ramkamer, 1971) as the individual awareness (Ruch, 1970) and "as the totality of attitude, judgements and value's, closely related to the person's behaviour, abilities and qualities connected to the parental behaviour and with the measure of failure in adjustment (Eysenek, 1975). Self esteem has two aspect, personally and socially perceived self. Huntley (1940), a student of Allport, who conducted several studies to examine expressive behaviour in relation to self-esteem and also examine to the similar work of Werner Wolf (1933, 1943) again re-examined by Lindzey (Lindzey, Prince and Wright, 1952). The generation of the findings of Huntley (1940) Wolf (1933, 43) and Lindzey (1952) made by Allport. He concluded that the expressive behaviour and features of the body not only depend upon but also affected by other's person. He confirmed the statement of Lavater, one and the same spirit is manifest in all. According to Allport the unit of expression-pattern depend upon one's expectation which come out in complex ways precisely as personality itself patterned.

Self-concept or self esteem plays an important role in a person's adjustment to home, school and society. Several studies have been conducted in this area. John and Medinnus (1974) found who have positive self-concept in terms of self-esteem and self-acceptance in the foundation of healty and sound personality development. Self-esteem promote better adjustment (Rogers, 1957, Shilien, 1961, Wilie, 1961), healthy personality (John and Madinnus, 1974) generous, fair minded and ability to aceept criticism (Trent, 1953; Sheerer, 1948; Philips, 1951; Eastman, 1956; Berger, 1952; Fey, 1954, 1955; Jervis, 1958), more creative (Mccurdy, 1957, Masis, 1958, Coopersmith, 1967, Sears, 1970) potentiality, and develop objective attitude of the behaviour of others; warmful love (From) and demote objective attitudes, judgements of others as well as himself.

Self has been defined as an object of awareness (Mead, 1936), a cognitive structure (Sarbin, 1952) image of oneself (Hilgard, 1949), conscious thinking ability (Snyggs and Combs, 1949, Sung, 1951, 1953). Content of the cousciousness (Sullivan, 1953) centre organizing agency (Erikson 1959, Cattell, 63 Sherif and Cantril) which is the product of interactions (Sherwood, 1965) governs individual's behaviour and adjustment (Rogers,

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1959) and have continuity and identity (Sung, 1923), Self is not the system of process (Meads, 1934) but it is the group of psychological process (Rogers, 1959) which learned socially in a unitary complex of sensing, remembering, imaginary, wanting, feeling, thinking etc. (Bertoci, 1945, Snyg and Combs, 1945).

Social class is an important variable which consisted occupation, income, education and caste and have a positive role in the development of self. For the present sludy social class has been defined thus, "By social class is meant any group of persons coming closer to each other on the continum of occupation, education, in come and caste. The social class vary from society to society. The social prestige of one family siginficantly effect the development of self-concept because social status is positvely correlated to the social values and social attitudes.

The purpose of the present study is to exainme the effect of social class and sex on the self-esteem. How do different level of social class and sex affect self-esteem? How do the social class and sex initeract themselves during their operation in the context. In nut-shell the present study determines the effect on self-esteem as well as their interaction in the operational process.

Methodology and Design :

It is a 3×2 factoriai study whose independent variables, Social Class and Sex remained assigned three and two levels respectively. Scores of self-esteem are the dependent variable. The high, medium and low Social Class have been determined by administering R. N. Pandey's Social Class evaluation scale on 150 Adolescents students of age level 15 to 18 yrs. (Average Age + 16·5). On the bases of ogive high social class, middle social class and low social class have been determined. The sixty elements of the sample are randomly drawn out of the strata of social class' (High, Middle and Low) and 'Sex' (Male, Female). They are urban adolescent of the average age and scholastic achievement.

Sample were randomly drawn from four schools of Agra. The distributions of the elements for the 'paradigm' of the factorial study is as under.

TABLE-1

		SEX		
		Male	Female	Total N
Social Calss	H	10	10	20
	M	10	10	20
	L	10	10	20
		30	30	60

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The instrument used to measure self-esteem was the Prasad and Thakur's Self-Esteem Inventory. The inventory has 60 items which measure personally-perceived self and socially perceved self. The split-half reliability is ·82 and ·78 for personally-perceived and socially perceved self, respectively.

The main hypotheses of this 3×2 factorial study are—

(1) Sex may influence the self-esteem.
(2) Social class may influence the self-esteeam.
(3) There may be interaction among sex and social class.

The level of siginficance of difference has been set at ·05 level. The varification of hypotheses has been done with the help of the *F*-test, Duncn's Range Test and *t*-test.

RESULT AND DISCUSSION

TABLE-2 : Showing N, Total X, Total X^2, $\overline{X}$ and S. D. of the different cells of 3×2factorial study.

SOCIAL CLASS	SEX: Male	SEX: Female
HIGH	N=10	N=10
	Total X=31·50	Total X=2698
	„ X^2=·97681	„ X^2=733054
	$\overline{X}$=315·1	$\overline{X}$=269·8
	σ=23·09	σ=23·88
MIDDLE (Medium)	N=10	N=10
	Total X=2905	Total X=2708
	„ X^2=846167	„ X^2=739942
	$\overline{X}$=290·5	$\overline{X}$=270·8
	σ=15·86	σ=27·11
LOW	N=10	N=10
	Total X=2735	Total X=2705
	„ X^2=756293	„ X^2=737359
	$\overline{X}$=273·5	$\overline{X}$=270·5
	σ=30·31	σ=25·06

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TABLE-3. Showing the F-test result of Social Class and sex as correlates of self-esteem.

Source of Variation	SS	*df*	Mean Square	*F*	*P*
Treatment	16461·10	5			
Social Class	4215·10	2	2107·5	3·47	$P<·05$
Sex	7706·73	1	7706·73	12·71	$P<·01$
Social Class X Sex	4539·27	2	2269·63	3·74	$P<·05$
Error	32741·56	54	606·32		
TOTAL	49202·66	59			

The findings of 3×2 factorial study are :

A. The Main Effects :

(*i*) *Social Class* : The different level of social class affects self-esteem ($P<·05$), To know which social class (high, middle and low) more effect or promote self-esteem, the Duncan's Range Test have been applied. The DRT results are :

(1) High Social Class—Middle Social Class (No significance).

(2) High Social Class>Low Social Class (Sign. ·05).

(3) Middle Social Class—Low Social Class (No. signi).

The DRT's results indicate Adolescent belonging to the High Social Class have greater self-esteem (<·05) than low social class adolescents. But they have not siginficant magnitude in respect of self-esteem in the comparisom of those adolescents who belong to middle social class. The similar result have been found in the comparison of middle social class adolescents and low social class's adolescents.

(*ii*) *Sex* : Sex influences scientific interest significantly ($P<·01$). Male-Adolescents have a clear superiority over female-adolescents in respect of self-esteem.

(B) The Bivariate Interactions :

From table-3 it is evident that the interaction between social class & sex is rejected as its F(3·74) is significant at ·05 level. It shows that the social class plays a significantly differcnt role at the two levels of sex and or sex plays a significantly different role at the three levels of social class. Table-4 throw light on these differences breakdown of 3×2 table into three possible combinations.

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TABLE-4

	SS	*F*	Sign. Level
(1) Sex M/F × Sc H/M	65 36 5·	1·08	N. S.
(2) Sex M/F × Sc H/L	1789·29	2·95	<·05
(3) Sex M/F × Sc M/L	278·89	0·46	N ·5

It inidicates that male adolescents belonging to high social class or low social class have more self-esteem in comparison to female adolescents of the same social class. In other words-male adolescents belonging to high social class have more self-esteem than male students of low social class, whereas female adolescents belonging to low social class have more self esteem than female adole & cents of high social class.

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INTELLECTUAL AND BEHAVIOURAL HANDICAPS IN LOW BIRTH WEIGHT BABIES.

M.N. Misra,+ Savita Agarwal,+ Ramesh Prasad,+ R.S. Dayal+ & D.N. Pandey.
+ Department of Paediatrics. ++ Department of Preventive & Social Medicine.
S. N. Medical College, Agra.

Summary :

The present study was conducted in the department of Paediatrics, S.N. Medical College, Agra on 100 children of School going age. These cases included 25 preterm (gestational age less than 37 weeks), 25 small for date (gestational age more than 37 weeks, birth weight less than 2000 gms) and 50 controls (gestational age more than 37 weeks, and birth weight more than 2000 gms.) These children were born between 1968-70. Their birth records consisting of birth weight, gestational age and postnatal history was already available in the department.

These children were followed up at 6-10 years of age by making contact with the mothers. Beside taking a detailed history, they were throughly exmined to rule out any major illness, which could affect the physical and mental development. The physical and intellectual development of these children were assessed.

Milestones were delayed in greater number of small for date children than among the control group. The preterm and small for date children when compared with controls, remained inferior in all parameters of growth throughout the school going period.

The small for date, and preterm had lower I. Q. than the controls, small for date children had lower I. Q. than the preterm children. Scholastic performance was also poor in small for date and preterm as compared to controls.

Behaviour problems were present in maximum number of small for date and preterm then the control.

INTRODUCTION

The birth weight of a child is related to many factors. The important among them are the duration of gestation, racial and genetic factors, mother's state of nutrition in the last 3 months of pregancy, besides many unknown factors. The birth weight is an index of child's growth potential (Illingworth, 1968).

A study of growth pattern is not complete without the study of neurological and mental maturity. The concept of Intelligence is important in every field of life. It is important for assessing the potential ability of students for advanced education, and suitability of candidates for different levels of employment.

School going period is most significant period in the life of human beings because maximum growth in all apheres occur during this period. It is during this period the

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standard of behaviour and academic activities are further refined. Ideas of right and wrong are elaborated. By this time the child developes recognisable personality which tends to persist into adult life.

It is with this background that evaluation of intellectual and behavioural handicaps in low birth weight (small for date and preterm) children at school going age was undertaken. The aim of the present atudy was to evaluate (1) The Intelligence of small for date, preterm and control (gestational age more than 37 weeks with birth weight more than 2000 gms) children. (2) The pattern of behaviour problems in the above three groups of chiidren.

MATERIAL AND METHOD

The present study was conducted in the department of Paediatrics, S. N. Medical College, Agra. A total of 100 children of school going age were studied, which included 25 small for date (normal) gestational period, birth weight less than 2000 gms), 25 preterm (gestational period less than 37 weeks, birth weight less than 2000 gms) and controls (normal gestational perriod, birth weight more than 2000 gms).

These children were born during 1968-72 and their birth records consisting of birth weight, gestational age and postnatal history was availab'e in our department.

In the present study these children were followed up at 6-10 years of age by making contact with the mothers. Their past history of illness was obtained to rule out the diseases which caused mental handicaps (e. g. meningitis, encephalitis, head injury and others). Their developmental milestones were also noted in details along with the complete school history.

Family history including the age, occupation, income and education of both the parents was noted. An elaborate enquiry was made to bring out the behaviour problems of these children. Their intelligence was assessed on the stanford Binet Intelligence Test (Allahabad, Hindi adaptation, 1959).

OBSERVATIONS AND DISCUSSION

Age & Sex Distribution :

There were 66 male cases which included 15 (60%), small for date, 18 (72%), preterm and 33 (66%) controls. The female sases were 34 in number which included, 10 (40%) small for date, 7 (28%) preterm, and 17 (34%) controls. Thus overall male female ratio was 2 : 1.

Maximum number of cases (32%) belonged to 8-9 years of age. Under 6-7 years of age, there were 20% cases, in 7-8 years 27% and in 9-10 years of age 21% of cases (table-1).

Table-1 : Age Distribution

Type of Cases	Age in years								Total
	6-7	%	7-8	%	8-9	%	9-10	%	
Small for date	3	12	8	32	9	36	5	20	25
Preterm	6	24	5	20	8	32	6	24	25
Control	11	22	14	28	15	30	10	20	50
Total	20		27		32		21		100

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In this study children of school going age were selected because of the fact that maximum development in all spheres occur during this period. Male female ratio could not be compared with other studies as no mention to this effect was made in other studies.

Socio-Economic Status of the Families :

The income of father was noted and was classified as per I.C.M.R. (1966) ; socio-economic classification. Overall maximum number of cases were of socio-economic status class II (36%). In class III there were 30% cases, in class I-22% cases and in class IV 12% cases.

In class IV maximum number of cases were preterm (24%) while small for date and controls were 20% and 2% respectively.

In class I, the maximum number of cases belonged to the controls (32%) while 24% were preterm and 8% were small for date. Thus the small for date for and the pre-term children came from lower socio-economic class (III and IV). (Table-2).

Table-2. - Socio-economic Class :

Type of cases	Socio-economic Class								Total
	I	%	II	%	III	%	IV	%	
Small for date	2	8	6	24	12	48	5	20	25
Pre-Term	4	16	5	20	10	40	6	24	25
Control	16	32	25	50	8	16	1	2	50
Total	22		36		30		12		100

Indian Council of Medical Research, New Delhi (1966) Soci-econemic Classification :

Class I	:	Income over Rs. 10000/-p. m.
Class II	:	Income between Rs. 500/-to 1000/-p. m.
Class III	:	Income between Rs. 200 to 500/-p. m.
Class IV	:	Income less than Rs. 200/-p. m.

Bundeensen *et al* (1951) reported that as the socio-economic status of the area imroved the incidence of prematurity decreased. Thus prematurity was a product of low socio-economic status. The same was found in the present study also.

Robinson and Robinson (1965) followed up 227 low birth weight infants belonging to low socio-economic classes and considered socio-economic status to be more important than the birth weight.

Educational Status of Fathers and Mothers :

Educational status of fathers of preterm and small for date was lower than the fathers of the control group. Fathers of 5% cases were illiterate. Out of which their maximum representation was from the small for date (12%) and preterm (8%) groups. There was no illiterate father in the control group. More of fathers of the control cases were educated upto the graduate and the postgraduate levels, while the representation of the fathers of small for date and preterm was low under this level of eduction (Table-3).

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Table-3 : Educational Status of Father.

Educational Status.	Small for date		Preterm		Control		Total
	No. of cases	%	No. of cases	%	No. of cases	%	
Illiterate	3	12	2	8	—	—	5
Primary	2	8	3	12	5	10	10
Middle	3	12	4	16	2	4	8
High School	7	28	6	24	6	12	19
Intermediate	6	24	4	16	13	26	23
Graduate	2	8	5	16	10	20	16
Post graduate	2	8	2	8	14	28	18
Total	25		25		50		100

Similarly the educational status of the mothers of the preterm and small for date cases was lower than the mothers of the control group. Maximum number of mothers of the control group were graduates (12%) and postgraduates (18%). In preterm (8%) mothers were graduates, 4% were postgraduates while in controls 12% mothers were graduate and 18% were postgraduates. In small for date group 4% mothers were graduate and none had postgraduate education (Table-4),

Table-4 : Educational Status of Mother ;

Educational Status.	Small for Date		Preterm		Control		Total
	No. of Cases	%	No. of Cases	%	No. of Cases	%	
Illiterate	8	32	6	24	4	8	18
Primary	4	16	10	40	8	16	22
Middle	5	20	2	8	10	20	17
High school	5	20	2	8	8	16	15
Intermediate	2	8	2	8	5	10	9
Graduate	1	4	2	8	6	12	9
Postgraduate	—	—	1	4	9	18	10
Total	25		25		50		100

Douglas (1960) found more handicaps in low birth infants and postulated that these handicaps could be due to adverse home conditions (particularly due to lack of parental care, and low educational aspiration rather than the effects of low birth weight).

Similarly Butler (1970) also found that chances of having a backward child was 11 times higher in an unskilled family than in a professional family.

DEVELOPMENTAL MILESTONES

Developmental milestones were delayed in greater number of small for date and preterm children as compared to the control group.

Motor milestones were delayed in 72% of small for date, in 60% preterm, and in 20% control cases. Manipulative milestones were delayed in 60% small for date, in 72% preterm and 8% controls.

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Social milestones were delayed in 64% small for date, 52% preterm and 16% controls. Sppeech was delayed in 76% small for date, 56% preterm and 20% controls (Table-5).

Table 5 : Developmental Milestones.

Developmental Milestones	Small for date				Preterm				Control			
	Normal		Delayed		Normal		Delayed		Normal		Delayed	
	No. of Cases	%	No. of Cases	%	No. of Cases	%	No. of Cases	%	No. of Cases	%	No. of Cases	%
Motor	7	28	18	22	10	40	15	60	40	80	10	20
Manipulative	10	40	15	60	7	28	18	72	46	92	4	8
Social	8	32	17	68	12	48	13	52	42	84	8	16
Speech	6	24	19	76	11	44	14	56	40	80	10	20

Similary according to other investigators preterm children were let in reaching all the various milestones (Harper et al, 1959 ; Drillien, 1964).

In the New Castle maternity surveo (Weigan, 1967) it was suggested that there was a tendency for small for date infants to show impaired devlopment.

SCHOLASTIC PERFORMANCE

All the control cases were getting education in schools, while 28% small of date and 12% preterm had no schooling. Maximum number of control cases were above average (20%) and average (60% while (20%) preterm were above average and 60% had average performance. Similarly 24% small for date had average and 4% had above average grading.

Similarly maximum number of cases (16%), belonging to poor educational performance were of small for date, 8% were preterm and only 2% were from the control group (Table-6)

Table-6 : Scholastic Performance

Scholastic Performance	Small for date		Preterm		Control		Total
	No. of Cases	%	No of Cases	%	No. of Cases	%	
Above Average	1	4	5	20	15	30	21
Average	6	24	10	40	30	60	46
Below Average	7	28	5	20	4	8	16
Poor	4	16	2	8	1	2	7
No Schooling	7	28	3	12	—	—	10
Total	25		25		50		100

Drillien (1964) found that out of total cases of premature chilldren one third were likely to be ineducable in normal schools (be cause of severe mental or physical defect or both.)

ASSOCIATED BEHAVIOUR PROBLEMS

Associated Behavi our problems were present is 80% small for date, 64% preterm and 40% control case s. Bed wetting wasmost was most common among all the three

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groups. It was present in 24% small for date, 28% preterm and 16% control cases. Thumd sucking was found in 12% of small for date cases, 8% in preterm and 4% control cases. Nail biting was present in 8% each in small for date and preterm cases respectively. It was not reported in control cases.

Habit of pica was present in 4% small for date, 8% preterm and was not present in control cases. Night terror was present in 8% small for date cases, not rgported in preterm cases, and was present in 4% control cases. Night mases were reported in 4% small for date ca ses, not present in preterm and present in 20% control cases.

Truancy was reported in greater number that i.e., in 8% cases of control group as compared to small for date where it was present in 4% cases, and was not reported in preterm cases. Tantrum was present in 8% each of small for date and preterm cases, but was present in 2% control cases. Lastly phobia was present in grerter number, 8% cases of small for date coses, 4% in preterm and 4% in control cases (Table-7).

Table—7 : Associated Behaviour Problems.

Behaviour Problems	Small for Date		Pre-Term		Control	
	No. of Cases	%	No. of Cases	%	No. of Cases	%
Bed Wetting	6	24	7	28	8	16
Thumb Sucking	3	12	2	8	2	4
Nail Biting	2	8	2	8	—	—
Pica	1	4	2	8	—	—
Night Terror	2	8	—	—	2	4
Night Mares	1	4	—	—	1	2
Truancy	1	4	—	—	4	8
Tantrums	2	8	2	8	1	2
Phobia	2	8	1	4	2	4
No Behaviour Problems	5	20	9	36	30	60
Total	25	100	25	100	50	100

Small for date vs preterm. $Z=1{\cdot}27$, $p > {\cdot}05$
Preterm vs control $Z=5{\cdot}77$, $p<.01$
Small for date vs control $Z=9{\cdot}04$, $p<.01$

Comparing, proportions of behaviour problems in small for date and preterm groups there was no signficant differnce between the two groups ($Z=1{\cdot}27$, $p > .05$). There was highly significent difference between the proporrtions of behaviour problems in preterm and control groups ($Z=5{\cdot}77$, $p< .10$), also between small for date and control groups ($Z=9{\cdot}04$, $p<.01$), there was highly significant difference.

Mohr and Bartleme (1934) reported that temper display occured with distinctly greater frequency among prematurely born children than the siblings.

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Dougias *et al* (1976) compared individual matched controls, the low birth weight children showed similar proportion with severebehavioural handicaps.

INTELLIGENCE

In control group 6$_0$/$_0$ cases had superior intelligence —I. Q. (110—120 . There were no cases of preterm and small for date with superior intelligence. 40^0/$_0$ of control cases had normal or average superior intelligencei—I. Q. (90—110), while 20^0/$_0$ preterm, and 8^0/$_0$ small for date had normal or average intelligence. Below normal intelligence-I. Q. (84—89) was found in 28^0/$_0$ control cases, 16^0/$_0$ preterm cases and 8^0/$_0$ small for date cases.

28^0/$_0$ preterm. 12^0/$_0$ small for date and 12^0/$_0$ control cases had borderline mental retardarion,-I. Q. (68—83) Mild Mental Retardation-I. Q. (52—77) was present in 48^0/$_0$ small for date, 16$_0$/^{0} preterm and 10$_0$/^{0} control cases. Severe mental retardation-I. Q. (20—35) was found in 16$_0$/^{0} small for date, 8^0/$_0$ preterm and there ware no control cases under this category. There was no cases with profound mental retardation *i e.* I. Q below 20 in either of the three groups (Table-8).

Table-8 : Percentage Distribution of Cases According to Leneis of Intelligence.

Leveis of Intelligence	I.Q.	Small For Date	Preterm	Control
Superior Intelligence	110-120	—	—	6
Normal or Average	90-110	8	20	40
Below Normal	84-89	8	16	28
Borderline Mental-Retardation.	68-83	12	28	12
Mild Mental Retard-ation.	52-67	48	16	10
Moderate Mental Retardation.	37-51	8	12	4
Severe Mental Retardation	20-35	16	8	—
Profound Mental Retardation	Below 20	—	—	—

Borderline Mental Retardation, down up to profound Mental Retadation, the clssification is based on DSM II (Diagnostic Statistical Mental (1968) of the American Psychiatric Association.

The mean I. Q. of control group was 88·0 with S. D. =13·84, that of preterm 65 2 with S. D. =21·29 and for small for date 59·0 with S D. =16.51 (Table-9).

Table : Comparison of mean I. Q S. D. of small for date, Preterm & Cotrol groups

Groups	*N*	Mean I. Q.	S. D.	Comparison	*t*	*dp*	*p*
1. Small for date	25	59·0	16·51	1 Vs 2	1·150	49	>.05
2. Preterm	25	65·2	21·29	1 Vs 3	8·013	74	< 01
3 Control	50	88 0	13·84	2 Vs 3	5·585	74	< 01

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Comparing the mean I. Q. small for date and preterm cases, there was no significant difference between the two groups ($t=1{\cdot}150$, $df=49$, $p>.05$).

On comparing the mean I. Q. of small, or date and control groups, the difference was found highly significant ($t=8{\cdot}013$, $df=74$, $p<01$). Similarly the difference between mean I.Q. of preterm aud control group was also found hlghly significant ($t=5{\cdot}585$, $df=74$, $p<.10$) (Table-9).

Various workers have shown that I. Q. was higher among low birth weight children coming from higher socio-economic class (Blegen, 1952; Alm. 1953).

Harper and Wiener (1965) reported that the mean I. Q. (Stanford Binet) of the low birth weight children was 96·4, which is contrary to the ffndings of this study.

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CREATIVITY BACKGROUND OF SECOND STRATUM PERSONALITY FACTORS IN ADOLESCENCE

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The paper relates to the study of creativity background of growing adolescent personality creativity is considered in terms of its five components e.g. CP. (creative production), Fl (Fluency); Fx (Flexibility); Org. (Originality); and Isp. (Ingenius solution to problems). Personality is confined to consideration of four 'Second Order' factors, e.g. QI— (Introversion); QII —(Adjustment); QIII+ (Cortertia), and QIV— (Subduedness), Findings relate to the results of the Ph D. thesis. (Gupta, R. P., 1975).

Both fluency and ffexibility pose problems to 19 Years adolescent girls in terms of sensitivity to threat (H—), and dryness of emotionality (A—). Creativity components, with an exceptive of subuedness (QIV—), promote adjustment. In 21 Year old late adolescents, cortertia (QIII+) appears as a consern for males but a boon for famales The growth and integration of personality very much depend upon the growth of creativity components. Education in creativity has a clear potentiality to guide adolescent growth of personality.

INTRODUCTION : Cattell *et al.* (1970) have noted at the IPAT about forty factors constituting various strata in the dynamic framework of personality only twenty out of these are measurable at present. Factors with broader influences or organization contributing to primaries and accounting for their being correlated, (Cattell, 1970), are taken as 'Second Stratum' factors. The paper considers four* of the eight such factors covered by the revised test (Handbook 1970, Table 10.2).

The 'Second Stratum' factors, as one grows in age, exhibit growth or decline in their integration-functions. The phenomenon becomes more obvious in adolescence where personality with 'self' shows a speedy organization and reorganisation to equip itself for the goal-task of adulthood creativity blossm and starts flowering at this stage. Adolescent exhibits its changeable character through physical and psychological growths. Social relations with authority figures and agemates are expected to be revised and re-assessed. Equipped with uncertainty and low personal worth, (Rosenberg, 1965) adolescence shows an anticipatory quality position in the social matrix is learned for changed social roles. Sufficient self-assessment takes place. Identifications and object-attachments invite modification and revisions, (Sott, 1958 ; Sarbin, 1964 ; Thompson, C. 1964). Aggressiveness becomes masculine and dependence appears feminine, (Honzik, 1965).

*. QI Introversion-Vs-Extraversion.
QII. Anxiety-Vs-Adjustment.
QIII. Pathemia-Vs-Cortertia.
QIV. Subduedness-Vs-Independence.

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As a basic striving of life and an essential mode of the 'self-in being', creativity appears as a many splandoured phenomenon and a multi-variate complex (Wilson *et al.* 1954 ; Guilford and Christemsen 1956 ; Berger *et al.* 1957 ; Frick *et al.* 1959 ; Ketner *et. al.* 1959 ; Guilford *et al.* 1961). Creativity, through its intimate relationship with culture and man gives meaning to life. The 'Real self' within us manifests itself (Allport G., 1937). It emanates from a synthesis that occurs in the unconscious ego and is fostered by the freedom from repression (Hart, *H. H.*, 1950). Adolescent creativity exhibits both a masculine feature (Kloss, *M. G.*, 1972), and a feminine temper (MacKinnon, 1962). It tends to associate itself with subduedness (Holland *J. L.*, 1961 ; MacKinnon, 1962 ; Cashdan, *S.* and Welch, *G. S.*, 1966 ; Parloff, *M. B.* and Datta, *L. E et al.* 1968). It possesses ego-strength (Parloff, *M. B.* and Datta, *L. E.* 1965 ; Johnson, *R. L.* 1974). With less of anxiety (Reid King and Wickwise, 1959), and radicalism (Drevdahl, 1956 ; Cashdan, *S.* and Welch, *G. S.* 1964), it shows openness (Sengupta, 1976, 1977), adjustment (Barron, 1955 ; Cattell and Drevdahl, 1955 ; Drevdahl, 1956 ; Blatt and Stein, 1957), and assertiveness (Shannon, 1947 ; MacKinnon, 1950a ; Cattell and Drevdahl, 1955 ; Barron, 1955, 1957).

Intellectual operations of creativity and specifically of its components show, a multi-modal character. We note both 'figural' and 'semantic' contents, thorough divergent operations, result in transformations and implications in *C. P. Fl.* (Fluency) has divergent semantic relations, systems, and units alongwith divergent symbolic units. Org. (Originality) is divergent semantic transformation. Fx (Flexibility) possesses both divergent figural transformation and divergent semantic classes. Isp. (Ingenius Solution to Problems) has convergent semantic operations for implications. These operations are expected to influence both the peripheral and central structures of personality.

The paper attempts a deeper probe to understand and estimate the underlying spontaneously flowing creativity dynamics that gives characteristic shape to greater intigrating factors of adolescent personality.

2. **Methodology** : Results are drawn from four 'Ex post Factor' studies. Each of the studies has five '2×2×3' and three '2×2' factorial experiments, 150 null hypotheses are emperically verified. Each study has a sample of 240 elements. Normally of the sample has been determind through the measurement of skewness and kentosis. The *F*-test and *DRT* are applied*.

3. Results and Discussion

1. *At the age level of* 17 *years* :

(1) —Cp. promotes subduedness (Q IV—)
(2) —Fx. promotes adjustment (Q II—)
(3) —Org. promotes cortertia (Q III+)
(4) —Fl demotes introversion (Q I—) in boys but promotes it in girls.
(5) Isp. promotes adjustment (Q II—).
(6) —Isp. promotes cortertia (Q III—) in boys but demotes it in girls.

* Gupta, R.P. Second order personality Factors as Functions of Sex and Creativity Components Among Young Public Admin. Ph. D. thesis, Agra University, 1975.

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2. *At the age level of* 19 *years.*

(1) —Cp. promotes introversion (Q I—)

(2) —Cp promotes adjustment (Q II—) in boys but demotes it in girls.

(3) Fx. demotes introversion (Q I—) in boys but promotes it in girls.

(4) —Org. demotes cortertia (Q III+) both in boys and girls.

(5) —Org. promotes introversion (Q I—).

(6) —Isp. promotes cortertia (Q III+).

(7) —Isp. promotes cortertia (Q III+) in boys.

3. *At the age level of* 21 *years.*

(1) —Cp. demotes alertpoise (Q III+) in boys but promotes it in girls.

(2) —Org. demotes adjustment (Q II—).

(3) —Fl. promotes adjustment (Q II—) in boys but demotes it in girls.

(4) —Fl. demotes introversion (Q I—) in boys but promotes it in girls.

(5) —Fl. demotes cortertia (Q. III+) in boys but promotes it in girls.

(6) —Isp. demotes cortertia (Q. III+).

(7) —Isp. demotes cortertia (Q III+) in boys but promotes it in girls.

The 'Second Stratum' personality factors are consistently promoted by components of creativity. The demoting role of creativity components appears at 21 years of age. Subduedness (Q IV—) is creativity proof. Cortertia (Q III+) shows the best of sensitivity to components of creativity. Creativity promotes introversion (Q I—) at 19 but demotes it at 21 year. The year shows characteristic promotion of adjustment (Q. II—) and characteristin demoted of cortertia (Q II—) and characteristin demotion of cortertia (Q. III+) is exhibited by the age of 21 years.

Age 17, shows Fl. promoting introversion in girls and demoting it in boys Adjustment grows as a result of CP ; Fx and Isp. cortertia gets promoted as a result of Org. Isp. promotes masculin cortertia but feminine cortertia is demoted by it.

Age 19 shows CP. and Org. promoting introversion. Fx is responsible for the promotion of feminine introversion but demotes the masculine one. Masculine adjustment is promoted by CP. but feminine one is demoted by it. Isp. promotes cortertia in late adolescents but Org. demotes it.

Age 21 shows Org. demoting introversion Fl. demotes masculin introversion but femine introversion is enhanced by it. Fl. promotes masculine adjustment and demotes the feminine one. Isp. demotes cortertia. It promotes femine cortertia above. Both Cp. and Fl. demote masculine cortertia but promote the feminine one.

Creativity components are particularly active in promoting the 'Second Stratum' factors at 17. This activity is clearly showed down at 21 years. Creativity proveness of personality factors sides masculanity at 19 and finally at 21 years.

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4. Concluding Remarks :

1. (a) Intorversion has dryness of emotionality (A−) ; submissiveness (E−), soberness with caution (F−) and sensitivity to threats (H−). It is promoted by Cp. at 19 ; by Org after 19 and by Fl. at 21 years.

(b) Masculine introversion is demoted by Fl. at 17 and by Fx. at 19 years.

(c) Feminine introversion is promoted by Fl. at 17 and by Fx at 19 years.

Both Fl. and Fx pose problems in terms of threat-sensitivity and dryness of emotionality upto 19 for girls.

Creativity is said to be associated with subduedness (Holland, J. L. 1961; MacKinnon, 1962; Cashdan, S. and Welch, G.S., 1966; Parloff, M.B. and Datta, L.E., 1968), Subduedness as a trait, possesses 'tried and true' (Q_1-), high super ego (G+), group dependence (Q_2-) auxise, to do the right things (M−), passivity (E−), and emotional expression (A+). That way it is found as a creativity proof trait. If subduedness is used as a synonym of submissiveness (E−) that happnes to be an important attribute of introversion then it very well associates with Cp; Org.; Fi; and Fx.

2. Adjustment relates to relaxation (Q_4-) ; adequacy ($O-$) ; and emotional stability ($C+$). It is promoted by Cp. Fx and Isp. at 17 years Masculine adjustment is promoted by Cp. at 19 and by Fl. at 21 years. Feminine adjustment is demoted by Cp. at 19 and by Fl. at 21 years. Both Cp. and Fl. favour masculine adjustment. It has been noted that creativity associates with adjustment (Barron, 1955 ; Cattell and Drevdahl, 1955 ; Drevdahl, 1956 ; Blatt and Stein, 1957). The fact that Cp ; Fx , Isp. and Fl. as positive correlates of adjustment, is confirmed.

3. Cortertia has realistic temperament ($I-$), emotional stability ($C+$), and dominance ($E+$). Isp. demotes cortertia at 19 but promotes masculine cortertia at 17 years. Isp. Cp. and Fl. demote masculine cortertia at 21 years but promote the feminine one at the same time. Masculine cortertia is a concern and the feminine one a br on at 21 years. This is the clear phenoum of sex-seesitive creativity.. Creativity has been noted to possess asssertiveness (Shannon, 1947 ; Mackinnon, 1950*a* ; Cattell and Drevdahl, 1955 ; Barron, 1955 1957.) We note that cortertia possess dominance (E+), therein its atypical correlates are Isp. Cp. and Fl. Creativity also remain a correlate of submissiveness (E−) through its relation with introversion. Hence it is partially temble to hold that creativity remains associated with dominance (E+).

Thus, creativity in terms of its components, remain, a good correlate of the 'Second Stratum Personality Factors' with characterist in features for the age levels of adolescence and sex. Subduedness appears independent of creativity currents. The phenomena needs elaboration and deeper details.

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THE NEED FOR IMPROVED MEASUREMENT TECHNIQUES AND DESIGNS FOR ASSESSING PSYCHOLOGICAL ASPECTS OF FERTILITY BEHAVIOUR

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INTRODUCTION

It has been observed that many psychological studies of family planning have been distinguished by their disappointing results (Kapoor, 1968, Kiser, 1967). Explaining the reasons for each results, Kiser (1967) commented long back that "failure to yield much association of psychological factors to fertility behaviour suggests that the relevant psychological attributes either were not chosen or were inadequately measured". Similarly, David (1970) also remarked that "Studies of psychological and behavioural implications of family planning are handicapped by the absence of valid, reliable and culturally appropriate instruments" and by the fact that "the constellation of Psychological factors to be assessed had not been well defined". A review of some 40 attitude scales used in India indicated that the items, samples, and techniques used in them varied considerably (Kapoor, 1968). As such, the findings are not comparable and it is not possible to make generalizations regarding the attitude of the people towards family planning (Kar. 1968). The general awareness of the fact, therefore, seems to be that finding solutions to the problem of instrumentation in psychological studies of family planning is a *sina qua non* of further progress in this area.

Most psychological assessment instruments and focused interview-schedules available today have emanated from clinical practice and only in a few cases they have been developed for family planning research. The emergent need for methodological studies that may enhance the utility of psychological approaches towards achieving better understanding and prediction of attitudes as well as fertility behaviour has been highlighted by Fawcett (1970, 1973), David (1970), Kapoor (1973), Pareek and Rao (1974). Of particular importance are easily administered structured devices to assess those areas that the usually not accessible to standardized questionnaires.

Family planning researchers have tended to focus on contraceptive techniques, on reproductive physiology, and on demographic and fertility surveys, frequently neglecting psychological aspects of family planning behaviour. In recent years, imortant advances

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have been made in the understanding of demographic and social correlates of fertility, family planning and abortion. Demographers and Sociologists have postulated a range of explanatory variables. However, the search for psychological factors to explain individual variations in fertility behaviour and attitudes roward family planning has met with only limited success In fact, very few studies in India (Kapoor, 1968 ; 1973 ; 1974 ; 1975 ; Mukherjee, 1974 ; 1975 , 1977, Dhillon, 1975, Singh, 1976, Dayal, 1977, Bhargava & Singh, 1972 , and Bhargava 1978, 1979), have demonstrated unequivocal relationships between psychological variables and such significant criteria as family size, abortion seeking, or choice of or reaction to contraceptive methods. There is, however, a growing recognition that underlying the social and demographic variables are differences in attitudes, beliefs, perceptions, values, aspirations, and motivation which influence complex interactions and the intricate decision-making process involved in family planning behaviour.

Earlier attempts were replete with methodological limitations of the opinion-poll approach to attitude measurement in family planning research. Also, the information was lacking about the composition of population relevant attitudes, their determinants, their insensity, and salience, their susceptibility to change and their relationship to significant behaviour. Fawcett (1970) therefore recommended integration or psychological research with other empirical and theoretical researches including those related to social change, life cycles, personal significance of contraceptive methods, and individual perceptions of population policies and programmes.

Earlier studies had assumed that ability to predict variance in criterion variability was an indication of research utility. There was, however, little amount of variance in fertility behaviour that may be accounted for at the level of psychological variables. For examples, personality variables producing statistically significant but minor effects were deemed important and attitudes were found to have a larger gap between their favourableness and actual behaviour. It was noted that the usual assumption of high reliability of test instruments and linear association cannot be readily met in personality research. It may be admitted, however, that while it is primarily within given situations that specific predictions for psychological measures (personality, attitude, etc.) are likely to be meaningful, the interaction process between psychological and social situation has not become a major area of family planning or fertility research. Russo (1973) has observed that it is difficult to make a variance prediction at a time when major advances in contraceptive technology are likely to alter the characteristics associated with family planning success and the proportion of variance that one particular characteristic may predict. It is, therefore, not whether psychological or another kind of variable contributes more to a criterion variance but, rather, how variables interact to produce a given effect

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SPECULATIVE DIMENSIONS OF 'SELF ACTUALIZATION' THE 'EAST-WEST' MEET

N. S. Chauhan[1] and A. D. Sharma[2].

'Self' and 'Self-actualization' have characteristic connotations in the humanistic psychology of the West. 'Self' as a nuclear concept and 'Self-actualization' as the optimum end of life are highly promising but the Western framework of speculation out of which 'self' emerges as a 'bye-product' does not correlate with the transcendental programme of 'actualization' that the hyper-fascinating and utopian.

Both the gap between the two concepts, as well as, their self-contradictory assumptions, can be smoothed corrected, and reorganized with the help of Indian speculative framework. Then, and only then 'self-actualization' can become a realistic plan in place of a 'fantastic dream'. The concept of *n*-Cathecticity and its related research can prove to be of immense worth according to authors.

INTRODUCTION

'Self-actualization' has two terms, viz. 'self' and its 'actualization'. The term has a broad perspective and a crucially important teleological programming. The concept, as Maslow views it, has preocesses of developing capacities and talents, of understanding and accepting one's own self, of harmonizing or integrating motives or states resulting from these processes. This ongoing purposive programme envisages development of talents, acquisition of knowledge and self-acceptance as well as, harmonizing motives. It, as a process, remains a dynamic concept with perceptions, thoughts feelings, and actions ; all of which proceeding towards qualitative changes in behaviour and always keeping close to teleoligically guided pathways.

The concept is intimately related to 'self', the basic referent of 'existence-in-being'. 'Self', as the nucleus of personality, (Lecky, 1945) provides a dynamic base to personality and its growth. Self, as product of social interactions, (Mead, 1934 ; Fromm, 1941 ; Herbart and Bloom, 1962, 1966 ; Sherwood, 1965) possesses a perceptual continuity of growth, (Jung, 1923 ; Allport, 1955 ; Sullivan, 1959 ; Cattell, 1963) and a cognitive structure of adjustment and interactions. Rogers (1959) sees 'self'. 'As organized consistent conceptual gestalt of perceptions of relationships of the 'I' or 'Me' to others and to various aspects of life with value attached to these perceptions. 'Self' as its ingradiants, possesses personfications (Allport, 1955), images, (Angyall, 1941 ; Allport, 1955) and self-sentiment, (Cattell, 1965) from which flow incessant aspirations for self-actualization'

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(Rogers, 1959) The 'Real Self' possesses views of identity and worth, aspirations for growth idea of 'becoming' and of 'the desirable' as well as, self-evaluations related to adequacy, worth and capacity of actualization. This dynamic process of the perpetuating 'Self' never ends.

The developmental perspective of life provides us with good insights. The 'model' or the 'dream of life' is adulthood. The adult must prove himself, a productive worker and a genuine partner (Adler, 1929b). Fromm, (1941) laid emphasis upon adults, 'productive character'. The adult must posssess 'true health' to be able to love and create through proper harnessing of cosmopolite relations and self-identity'. Reasoning and objectivity-attitudes must be developed. Rogers (1957) saw the adult as a 'fully functioning person.' Elevation and expansion of his 'being' is needed for blossoming of independence, freedom, love and morality. His capacity to deal creatively through the internal locus of evaluations, must remain embedded to openness to experience with a clear absence of threats and defenses. Allport (1958a) wanted the audlt possessing a videly extended sense of 'self', full of warm relations full of compassion and altruism, emotional security and self-acceptance. The 'self' must be extended through 'self-objectification'. He must be able to laugh at his own 'self'. Maslow (1970) provided the adult with 'self-actualizers'. Basic 'goodness' be realized through objectivity, openness and experience. He needs increased spontaniety, freedom to be creative ability to love, genuine social interest, ability to transcend dichotomies and polarities. Autonomy must flourish well above the socio-cultural setting with a sense of detachment proceeding towards 'Peak experience' and a moralistic democratic way of life.

It may be noted that the process of development of 'self'-conceptualization through 'helplenness', 'object-identifications' and 'defferentiations' does not reveal sheerly a teleological purpose but remains imbued with an intrinsical purpose. Conscience or 'Super Ego', as a meaningful correlate of 'being' does not exist as an imposed phenomenon. It happens to be a regulatory 'principle' of the 'actualzing self', grounded in, 'Truth-Beauty-Govdness' (Horney, 1939 ; Rogers, 1944 ; Fromm, 1947 ; Angyal, 1965 ; Maslow, 1968). The structure and dynamics of personality are not laid down during infancy as Freud and Murray contend, the role of conscious cognitive processes that act with a purpose, remains uniquely obvious. (Adler, 1927 ; Angyal, 1941 ; Lecky, 1945). Life is a process of being born. Potentialities are nurturaed and actualized through life's interactions with environment. The impetus of growth lies 'within' and is not without. Man chooses to grow and not that he is grown. (Maslow, 1938).

A systematic enquiry, with the emergence of 'cues' gathers greater momentum to proceed towards the goal. The self-organizing 'gestalt' of such 'bits' as these provides us with never ending perspectives and greater problems call for qualitatively better patterning of our speculative reserve. The philosophical enquiry sets in motion to accept the incessant challenges of nature. This task has become today of crucial importance to the 'humanistic' psychology of the West. 'I went to find myself' (Horney, 1950) because 'I want to eastablish my own identity that lies within myself, (Fromm, 1941). Establishment of 'self-indentity' will proceed to awareness of the ultimate attributes like, 'Truth-Beauty-Goodness' (Horney, 1939 ; Goldstein, 1939 ; Fromm, 1941 ; Rogers, 1944 ;

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Fromm, 1947 ; Murphy, 1947 ; Angyal, 1941 ; 1965 ; Maslow 1968). 'Creative visions' (Arasteh, 1976), through 'peak-experiences' (Maslow, 1970), point out to transitory acutalizations of the basic attributes of 'Truth-Beauty-Goodness'.

The 'self' must accept itself (Adler, 1929, Maslow, 1970) through boldness and courage (Adler, 1929 ; Rogers, 1959) and must remain full of striving and activity (Adler, 1929), 'Self-worth' can be enhanced by it if aligned with independence, (Adler, 1929 ; Fromm, 1941 ; Rogers, 1959 ; Maslow, 1970), free from considerations and conditions (Rogres, 1959), as well as, making, it fearless in decisions (Adler, 1929). An adults 'self' must radiate love (Fromm, 1941; Maslow, 1970), creativity (Fromm, 1941 ; Rogers. 1959 ; Maslow 1970), and objectivity aiming rationality (Fromm, 1941 ; Rogers, 1959 ; Allport, 1961 ; Maslow, 1970). 'Self-worth' when cultivated properly, leads to 'self-balance' (Maslow, 1970) and such a 'self' is a 'detached self' (Allport, 1961 ; Maslow, 1970). Its interests proceed towrds 'cosmic interests' (Adler, 1929 ; Allport, 1961) ; its emotionality flows through 'compassion' (Allport, 1961). It, being fearless, always strives for dispssionate, objective, right knowledge, and experience (Allport, 1961).

The detached 'self' (Allport, 1961) of the 'balanced' adult (Maslow, 1970), through 'productivity' (Adler, 1929 ; Fromm, 1941), and social genuineness (Adler, 1929) always aspires for the 'Cosmic worth' for the 'Cosmic harmony' (Rogers, 1959) and the 'cosmic goodness' (Maslow, 1970). It may be noted that the 'self' of the model adult' of Western Psychology appears transcending from its position to that of the 'cosmic' one. This 'self's common correlates of 'basic goodness', detached objectivity or 'self-humour' and 'balance' or 'harmony are actually tacit recognitions of the 'Cosmic Ideals' of 'Truth-Goodness-Beauty', where 'love', 'creativity', 'compassion' and 'sacrifice' gather their worth in the speculative framework of the 'Cosmic Being'.

The speculative framework behind the 'self-extensity' —oriented 'dream' of the Western humanistic psychologists, resembles very much with that of the ancient Indian Philoso-Phers-Psychologists. The Indian 'Seers' and 'Yogic Psychologists' took this 'dream' more as a practical programme, since the striving of the 'Sprit' does not logically cease before no less than realising complete 'Oneness' or 'identity' with the 'Cosmic Absolute' or 'Brahman'. The Western Paradign of thought and enquiry has cautiously ignored some vital and basic in-gradients as a result of a faulty approach and a rigid prejudiced outlook to science and life.

Fromm (1941) is wrong when he says that 'self' arises out man's need to establish his identity. Its reverse is true. In man, the 'sense of identity' arises out of 'self-identity awarness'. Again, the 'Real self' wants to grow (Horney, 1950) or strives to 'actualize itself' (Rogers, 1959). Man is creative due to this 'actualization motive' (Goldstein, 1939). The Western humanistic psychologists do not explain as to what is the reality behind this inherently cosmic 'Individual self'. Such drawbacks are available else where too, Freud takes 'the Unconscious' as 'dynamic' but fails to explain its causal network. 'Self' is both 'unique', as well as, 'consistent'. It strives to actualize its state of 'changelessness'. This is the view of the 'Sankhya' and the 'Vedanta'. About such a 'self', the Chhandogya Upanished speaks, "He is mind, breadth, body-possessed, self-luminous, truth-resolving, is like sky. It possesses will, action-force, sensuality, all smells; is full of juices. That 'sould' resides in my heart, is greater than than the earth, thesky and luminaries, is greater than all, is

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Brahman". This leads us conclude that the 'mmanent self' grows to actualize its inherent 'transcendence'. Acquisition of knowledge proceeds towards the latent 'Omnisclence'. The striving phase of the 'self' in the form of 'development' proceeds through 'differences'. unity in difference's -'unity alone and no difference'. This stable and real 'self' when actualized bestows unbridled power, peace and tranquility. Being 'a-sensual' (i. e. Akama) this 'self' has no sensuality. 'Bliss' flows from it[1]. He remains unsaddened by griefs and sorrows[2]; is not swayed away by pleasures[3], remains devoid of attachements, fear and anger.[4] The senses of this 'actualized self' remain withdrawn from objects[5].

It may be submitted that the Indian knowledge of man, through the yogic methodology, has resulted in the knowledge of the 'limitless', 'eternal' being who is perpetually manifest in the world-process by his own internal and inherent 'urge'. It expresses itself in the form of the 'infinite many' without losing its basic 'unity'. The nature of man as revealed by 'waking'—'dreaming' and 'deep sleep' experiences, as well as, 'meditation', confirms the view that 'the cosmos is man writ large and man is the cosmos in miniature'. (Attreya, B. L., 1966). Man is not a psysical entity alone. He is the sprit manifesting itself. He does not perish into nothing at the death of the physical body. Life is not a meaningless accident but is a continuous process governed by the two principles of 'desire-fulfillment,' and 'law of *Karma*'. The Western view of the 'self' as an acquired phenomenon' through evaluations and interactions during infancy, runs counter to their concept of 'actualization'. 'Self', it may be asserted, is not the product of 'autonomy' or 'homonomy', as Angyal (1951) thinks but paradoxically, the tendencies of 'hamonomy' and 'autonomy' emanate from the 'self', assigning 'purposiveness' to its 'conscious cognitive processes' (Adler, 1927) Angyal, 1941).

The 'self'—theorists of the Westren world as a matter of fact, can not attribute terms like, 'full experience'. 'unconditional abiding joy', 'perfecttion' and 'freedom' to a 'self' that happens to be a product by itself. These terms can be meaningfully used, as noted by yogic methods and the proper understanding of the nature of man, for the 'Spirit' manifesting itself infindlity but remaining the same as a great 'cosmic principle'. Again, we must note that the unconditional and abiding bliss does not lie outside, nor is bestowed by the object-invested desires. It, on the other hand, springs from one's own 'self' when it attains complete emancipation from pursuits of pleasure of the world around. As a matter of fact the sole purpose of life is centred in 'spritual perfection and freedom' and the 'self' remains ever striving for this 'ultimate' aim. Spritual perfection and freedm, as envisaged by the Upanishads, the Bhagwat-Gita and the Yoga vashishtha consists in a 'conscious realization of identity with the whole in all its aspects'. On the psysical plane the body is relized to be an organic part of the cosmos. Thoughts, emotions and action.

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1. आत्मन्येवात्मना तुष्टः (गीता)
2. दुःखेषु अनुद्विग्नमनः (गीता)
3. सुखेषु विगतस्पृहः (गीता)
4. वीतराग भय क्रोधः (गीता)
5. आत्मवश्यानि इन्द्रियाणि (गीता)

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on the mental level, remain inter-related with those of the 'Cosmic Mind'. On the causal plane, one remains very intimately connected with all the finer forces of the World. On the spritual level, one remains the 'Absolute Reality' itself and nothing else, The yoga vashishtha puts this view beautifully as, 'rooted in the same Brahman all the individuals and beings in the Universe, are interconnected. None of us is alien to others. The same all pervading 'self' is present in all of us. We struggle, hate each other, quarrel and fight until we realize this spritual identity and interconnectedness. But when we understand that we are like branches of the same tree or like limbs, organs and cells of the same body, and are thus interconnected with each other, our attitude to life changes. Fellowship, cooperation, sympathy and goodwill begin to characterize our life. Harmony and happiness characterize those lives which are based on the realization of this principle. The 'Ishxopanished' (*p.* 10) expresses this very spirit as, "whosoever beholds all beings in the same 'self' and the same 'self' in all beings, does not hate any body. When a man knows-that all beings are ultimately the 'seif' and realizes this unity in experience, then there remains no delusion or grief for him." This 'selfhood', it may be noted, is the stage of 'Siddhavastha', 'Brahmi', or 'Jiva-Muktavastha'. Here the 'self' is a-sensual, self-desciplined and detached. Attitude to action is that of equality (i. e, Samyayoga) and duality is completely relinquished (i. e. Dwandivatita) Intelligence looses its transitory character at this stage of stability (i. e.) Sthiteprajuata). The senses are controlled and purified. It can be invested at will in higher pursuits of 'self-realization', Here, the 'self' becomes its own object of investment. Sthitaprajuata (i. e. n-cathecticity) remains an index of the masterly decision of highly integrated self-perpetuating system of the enlightened 'self' and may be taken as 'the equilibriated state of the object-detached but 'self-attached' stage of the 'self' itself (Chauhan, N. S. 1974).

The concept of '*n*-cathecticity' (i. e. Sthitaprajuata) relates to the status of the 'self' at a particular stage of 'actualization' and is associated with the 'model man' envisaged by the Indian thought and culture. The spirit of the 'Self' behind this 'actual ized stage' is not an emergent phenomenon but a 'self-perpetuating entity' and remains pervaded universally like a potentiality or a 'G' of Spearman. This potentiality of actualization characterised by 'self-attachment' and 'Object-detachment' is the state of '*n*-Cathecticity' (Chauhan, N. S., 1974) and is subject to measurement. Empirical results about adolescents, (Kapoor, K. 1978) show that being a positive index of 'Self-actualization' and growth, it is clearly associated with self-sentiment-integration (Q_3+), Super Ego, strength (G+), ego-strength (C+), social boldness (H+), radicalism (Q_1+), practicality (I—) and emotional maturity. It has also been noted that '*n*-Cathecticity', associated with dryness of emotionality (A—), frustration inferiority (C—) and withdrawal of the maladjusted being, shows a clear decline. Similarly the healthy mode of adolescents' '*n*-Cathecticity' is seen aligned with 'masculanity'. Results of another study (Tewari, A. 1978), indicating the nature of the 'creative self' being positively associated with richness of emotionality (A+), dominance (E+); reduced protensie state (L—), autic temperament (M+) in creative productives, association of originality with self-sufficiciency (Q_2+); of flexibility with self-adequacy (O—) and radicalism (Q_1+) and of Isp. (Ingenicus solution to problems) with social boldness (H+) confirm beyond doubt, that the 'self', on both the dimensions of '*n*-cathectivity' remains identical in its 'self-perpetuating' process of 'actualization'.

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PERSONAL VARIABLES AND SECOND ORDER PERSONALITY CORRELATES OF CREATIVITY

Mahesh Bhargava, Agra

The present study aimed at to see the relationship of Creativity with certain personal variables and Second order personality factors, A sample of 300 Adults of both sexes were randomly selected from Agra District. The Indian adaptation of cattell's 16 P. F. Questionnaire Form 'B' was used. On the basis of data, it is concluded that creativity related with anxiety, independence, education and occupation while alert poise, extrovertion and family size are negatively related. Age and income showed no relationship with creativity.

INTRODUCTION

Creativity has been currently recognized as an important field of research. Roe (1946), Thurstone (1952), Stein (1953), Cattell and Drevdahal (1955), Guilford (1959), Pine and Holt (1959), Anderson (1960), Dehaan and Havingh Hurst (1961), Hammer (1961), Mednick (1962), Torrence (1965), Barron (1969) and many others have presented significant contributions to creativity.

Theoretical and research contributions on creativity in relation with various psychological variables as inferred by Ray Chaudhary (1966), Raina (1970), Tripathi (1969), Mehdi (1977), Sharma (1972), Passi (1973), Parmesh (1969, 1976) etc. have highlighted the significance of studying Creative behaviour.

A number of correlational studies have been undertaken on different components of creativity in relation with some personal, social and psychological factors. Ray Chaudhary (1966) inferred that creative persons like musicians and artists have been distinctly marked and temperamental characteristics rather than by their cognitive and motivational aspects. by their emotional Parmesh (1969, 1976) reported that creative school going adolescents who primarily belong to low economic values were neither introvert nor extrovert. They were also neither low nor high in neuoticism. Bhan (1970) found that social factors are related to creativity whereas Sharma (1972) concluded that all the three factors-intelligence, interest and culture influenced the creative thinking. Kumari (1975) revealed that intelligence is related with creativity whereas adjustement has no relationship with creativity. Jain (1975) arrived at the conclusion that there is a low positive correlation between the scores on creativity and achievement of both the sexes, however she did not get any relationship with age, though sex has been identified as a potential variable ; boys being higher on creativity Score than girls. Gupta (1976) concluded that creative thinking is significantly positively related with

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the global as well as social, emotional and educational adjustments. Further he has also shown that the higher the economic conditions, the better the creativity. Parmesh and Narayanan (1976) have shown that creativity has a significant' effect on linguistic, artistic and musical interest as well as the persuasiveness; however, they have reported positive correlation with intelligence. Nisha and others (1976) arrived at the conclusion that different components of creativity *i.e.* fluency, originality and ingenuity are significantly related to the creative personality.

Mallapa and Upadhya (1977) have shown that both high and low creative groups are significantly different on factors B, H, O_3 and O_4 of 16 P. F, Rawat and Agrwal (1977) found that creativity was negatively related to intelligence, age and sex whereas caste, occupation and income group did not show any relationship with creativity Srivastava (1977) Datta, (1974) and Jawa (1971) found that birth order did not influence creativity. According to Srivastava (1977) number of Shiblings has shown a moderate positive relationship with creativity scores, Nagia (1977) found negative correlation with extraversion whild Misra (1977) reported insignificant relationship with total adjustment.

Hypotheses (H_1) : Personal variables such as age, education, occupation, income and family and size are not significantly related to Creativity.

(H_3) Second order personality stratum are not significantly related to creativity.

METHODOLOGY

Sample : 300 adults-equal number of both sexes were randomly selected from Agra District from the purpose of the study.

Instruments : The Indian adaptation in Hindi of Cattell's 16 P. F. Questionanaire, Form 'E' by Si D. Kapoor was employed for this purpose.

Procedure ; With view to get both the second order personality factors as well as creativity score in one operation form, 16 P. F. Qestionnaire was adiministered to the sample groups and the second order factors scores namely anxiety, extroversion, alert poise and independence were derived from the 16 Primary Factors as well as the creativity score (which is a derived criterios score) by employing the relevant formula.*1

The scores for the personal factors were calculated either by direct scores as achieved by the subject or by assigning relevant weights in order of their hierachical importance to the different categories of responses. The responses recorded on persona factorsage and family size gave a direct score whereas the responses on the other three personal factors were assigned weights. Occupation was divided into seven hierarchically ascending categories, education into five and income into three and therefore, consequently the weights were assigned proportionately. Thus the maximum weight for occupation was 7, for education 5, and income 3. The summated weights on each one of the three factors of subjects revealed the obtained score of the specific sample under study.

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*1 Individual creativity score is equal to 11-A, Sten × 2, B sten × 2, E sten × 2, 11-F sten × 2, H sten × 1, I sten × 2, M sten × 1, 11-N sten × 1, Q_1 sten × 1 and Q_2 sten × 2.

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RESULTS

TABLE-1 : Coerelation between creativity score and second order personality stratum.

	SECOND ORDER PERSONALITY STRATUM			
	Anxiety	Extraversion	Alert-poise	Independence
Creativity Male=150	+.22*	—.34**	—.28**	+.48**
Creativity Female=150	+.01	—.24*	—.20*	+.40**

TABLE-2 ; Correlations between creativity score and personal variables.

	PERSONAL VARIABLES				
	Age 22 to 59 Yrs	Income 150— 2500	Education 5th—Ph. D	Occupation Farmer to Doctor	Family Size 1 to 8 Children
Creativity Male=150	—·13	·15	·54**	·23*	—·41**
Creativity Female=150	·04	·08	43**	·28**	—.31**

*Significant at ·01 level=·25
**Significant at ·05 level=·19

DISCUSSION AND CONCLUSION

Table-1 indicates that creativity is significantly related with anxiety on males while it revealed no relationship on females. It means, in males, higher creativity promotes anxiety and maladjustment. This confirms with the findings of Parmesh (1969), Kumari (1975) and Misra (1977) and contrary to Gupta (1975, 1976). On both sexes it has been found that creativity score has significantly negative correlation with extroversion which is an indicator of promotion of introvert tendencies. This result is contrary to the findings of Parmesh (1969) however it supports the findings of Gupta (1975) and Nagia (1977). Further both males and females showed significant negative relationship between Creativity score and alert-poise, however, positive significant relationship were obtained between creativity and independence. It revealed that high creativity promotes tender-minded on emotionality (if one has problems, one often involve too much thought and anxiety before action is taken) and independence. This finding is contrary to Gupta's (1975) finding. On the strength of data at hand, we reject the null hypothesis and conclude that creativity is positively related with anxiety and independence while alert poise and extroversion are negatively related.

Table-2 indicates that creativity has no relationship with age and income. The former is contrary to the findings of Rawat and Agarwal (1977). However it supports

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the findings of Jain (1975) while latter confirms the findings of Rawat and Agarwal (1977). The data reveals that age and income have no effect on creativity and it appears that it is equally distributed among all age and income groups of both sexes. In the present study one of the important finding is that creativity is significantly correlated with education on both sexes. It is clear that education is an important factor condusive to creativity. Higher education promotes creativity to a great extend. Further, it is also found that creativity is positively related to occupational level and negatively related to family size. This finding is contrary to Rawat and Agarwal (1977) in regard to occupation and also contrary to Srivastava's (1977) finding so far as number of siblings or family size is concerned. This result leads th the partial retention of the second hypothesis so far as age and income variables are concerned, however it is rejected with regard to the three personal factors, education, occupation and family size.

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TEACHER'S ATTITUDES TOWARD FAMILY PLANNING

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INTRODUCTION

"An attitude can be defined as an enduring organisation of motivational, emotional, perceptual and cognitive processes with respect to some aspect of individual's world."

Attitudes lie behind many of the significant and dramatic instances of man's social behaviour, it is for this reason that many Psychologists regard the study of Attitudes as the central problem of Social Psychology.

The main motive of this study was to ascertain the attitudes of teachers towards one of the burning problems facing the country *i. e.*, the problem of family limitation. Ex. Indian Prime Minister, Pandit Nehru once remarked-It is of the highest importance that we should make progress in this country and that we should raise the standards of life in this country There are many other things coming in the way of the standard being raised but one is obviously the growth of population which tends to keep down the standards necessary. Beden-Powellh as made this observation that the increase population neutrali sed the improvements in agriculture and that the latter suffered under the extreme pressure of population, Ranade, 1898, also considered the high birth-rate and the growing sterility of the Indian soil as one of the twin causes of the Backwardness of Indian agriculture. Wattal, P.K. (1926) in his essay "The Population Problem in India", discussed the over-population problem and advocated family limitations. In 1925, Karve, R. D. opened the first birth control clinic in Bombay as a step towards solving the population problem. M. L. Darling (1925) investigated the changing pattern of living in the Punjab Canal Colonies. The Royal Commission on Agriculture in its report in 1928 considered the increasing pressure of population as one of the main causes of the agricultural backwardness in India. Vera Anstey (1929) said the problem of population lay at the root of the entire question of India's economy future. In 1938, Radha Kamal Mukerjee calculated the food deficiency at 12%. To quote his own words, "..... that sooner or later India will have to adopt the ideal of the small family system and without a voluntary check on the size of the family....." But Mahatma Gandhi did not seem to agree with whatever has been said above. He said, "..... but I have joined hands with the advocates of birth control in India from the stand point of the present political condition of the country."[2] He had earlier written, "India is ill-equipped for taking care of her present population, not because she is over-populated but because she is forced to foreign domination whose creed is 'Progressive exploitation of her resources." The important Indian leaders like Rabindra Nath Tagore, Dr. S. Radhakrisonan, Jawahar Lal Nehru, Govind Ballabh Pant, Sarojini Naidu also agreed with the over-population point of view.

The Aims the Study: The working hypotheses upon which this study is based is

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that the Teachers of the different Post-Graduate and Degree Colleges, being men of good economic status, have a better pattern of living. It is also supposed that since the teachers are highly educated, they are conscious of the population problem faced by the country and subsequently that they are conscious of family planning. Therefore, the purpose of present investigation is manifold and they are in brief, as follows :

(a) To study the socio-economic life of the teacher.

(b) To study the attitudes of the teachers towards family planning.

Sample : The present paper studies the attitudes of graduate and postgraduate Teachers towards 'family planning'. The sample of the study consists of fifty teacher of graduate and post-Graduate Colleges of Agra.

RESEARCH DESIGN

For measuring the attitudes of the teachers towards family planning the scaling technique was adopted. After checking all the items a set of Questionnaire has been constructed on the basis of Likert's five point scale. For example, in developing a scale on attitude towards family planning, statements such as the following were used—

'Moral abstinence from sex indulgence' strongly like/like/undecided/dislike/strongly dislike.

The teachers were asked to mark a check against any of the five points stated above. The tool were delivered and collected personally by the investigators.

RESULT AND DISCUSSIONS

TABLE-1 : Showing 'First issue how long after marriage'.

S/No.	Period in years	No. of cases	Percentage
1.	1 year	9	18%
2.	2 years	26	52%
3.	3 years	4	8%
4.	4 ,,	8	16%
5.	5 ,,	—	—
6.	6 ,,	2	4%
7.	7 ,,	1	2%

OBSERVATIONS

(i) That the maximum number of cases had first issue after two years of their marriage i. e., 52%,

(ii) next come those who had first issue after one year *i. e.*, 18%.

(iii) remaining four group of years *i.e.*, 3, 4, 5 and 6 years showed 8%, 16%, nil and 4% respectively.

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(iv) only 2% had no issue in present study.

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TABLE-2 : Showing 'The period of separation between husband and wife'.

S/No.	Period (in a year)	No. of Cases	Percentage
1.	One	20	40%
2.	Two	13	26%
3.	Three or more	5	10%
4.	Never	8	16%
5.	Rarely	4	8%

OBSERVATIONS

1. In India, it is customary that wives go to their parents at least once in a year, In the present study it was revealed that there was no separation, worth the name, in only 16% of the cases that were studied.

2. Once a year was the period of separation for 40% cases and twice a year for 26% and thrice or more for 10% while 8% rarely separated.

3. It was also found that out of the 84% that separated for varying periods in a year, in 80% cases the wives went to their parents and in 4% cases the separation was occasioned, by the going away of husband on business.

4. The 100% cases know the possibility to control the number of births by practicing 'bith control methods'.

TABLE-3 : 'Showing Number of sexual contacts'.

S/No :	No. of Times	No. of cases	Percentage
1.	one	2	4%
2.	two	5	10%
3.	four	20	40%
4.	six	15	30%
5.	eight	4	8%
6,	ten or more	3	6%
7.	no reply	1	2%

OBSERVATIONS

1. In view of some information in the sex-behaviour a large majority of the cases, indulge in sexual interplay per month for 40%, 30% had six contacts, 8% had eight contacts, 6% had ten or more contacts and 10% had two contacts,

2. Four percent cases were given figures for this item as only one in a month and there was no reply from 2% cases.

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TABLE-4 : 'Causes of sexual contacts less than four'.

S/No.	Causes	No. of cases	Percentage
1.	For the maintenance of health.	6	12%
2.	Wife's refusal	—	—
3.	Moral abstenance.	—	—
4.	Any other.	1	2%

TABLE-5 : Showing 'The application of Birth-control'.

S/No.	Whether use birth control methods.	No. of cases	Percentage
1.	Yes	36	72%
2.	No	14	28%

OBSERVATIONS

1. It is also obvious that all of them were in no need for controlling births. It was found out that those who were in need of 'birth control' applied methods of contraception regularly.
2. Such methods were used by 70% of the cases.
3. The rest did not use them mainly because birth control was not required.

TABLE-6 : Showing 'Attitude of teacher towards Family Planning Clinics and methods of birth control.'

S/No :	Method	No. of cases	Percentage
1.	Clinic guidance (Yes)	36	72%
2.	,, ,, (No)	13	13%
3.	Rubber contraceptives	20	40%
4.	Chemicals	—	—
5.	Coitus interruptus	5	10%
6.	Rythmic Method	11	22%

OBSERVATIONS

1. A very healthy attitude was, however presented by the set of teachers under study for they were open to convictions and nearly all of them were in favour of going to the family planning clinics whenever the need arose.
2. The two methods of birth control are most popular *i.e.*, the rubber contraceptive method and Rythmic method.
3. The teachers who never applied methods of birth-control informed the investigator, the majority of those 14% whom had misconceptions that they were bad for health.

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TABLE-7: Showing 'Teachers attitude towards Moral Abstinence from Sex indulgence.'

S/No.	Attitude	No. of Degree College Teachers.	No. of P.G. College Teachers.	Total No	Percentage
1.	Strongly like	6	14	20	40%
2.	Like	8	17	25	50%
3.	Undecided	1	4	5	10%
4.	Disiike	—	—	—	—
5.	Strongly Dislike	—	—	—	—
	Total	15	35	50	100%

OBSERVATIONS

The teechers of post graudate college in comparison to the degree teachers have healthy attitudes towards moral abstinence from sex indulgence.

2. No teacher either disliked or strongly disliked the moral abstinence from sex indulgence.

TABLE-8 : Showing 'Attitudes of teachers towards extra Marital sex relations.

S/No.	Attitude	No. of degree College Teachers.	No. of P. G. College Teachers.	Total No.	Percentage
1.	Strongly Like	—	—	—	—
2.	Like	—	—	—	—
3.	Undecided	—	1	1	2%
4.	Dislike	6	14	20	40%
5.	Strongly Dislike	9	20	29	58%
6.	Total	15	35	50	100%

OBSERVATIONS

1. The twenty teachers disliked and twentynine teachers strongly disliked extra-marital sex-relations.

2. In comparison to degree college teachers, the post graduate college teachers were more in number who disliked and strongly disliked extra marital relations.

3. None of the teachers either strongly liked or liked extra marital sex-relations.

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TABLE-9 : Showing 'Attitudes of teachers towards Abortion (Intentional).

S/No.	Attitude	No. of Degree College teachers.	No. of P. G. College teachers.	Total	Percentage
1.	Strongly like	—	—	—	—
2.	Like	—	—	—	—
3.	Undecided	—	2	2	4%
4.	Dislike	1	12	13	26%
5.	Strongly dislike	14	21	35	70%
	Total	15	35	50	100%

OBSERVATIONS

1. Thirtyfive teachers strongly disliked the abortion (Out of these 14 belonged to the Degree and 21 to the Post Graduate College).
2. Thirteen teachers disliked the abortion. (One belonged to Degree and 12 to Post Graduate College).
3. None of the teachers either liked or strongly liked abortion for family control.

TABLE-10 : Showing 'Attitudes of teachers towards sterlization (Males)'.

S.No.	Attitude	No. of Degree College teachers	No. of P. G. College teachers	Total	Percentage
1.	Strongly Like	—	—	—	—
2.	Like	1	2	3	6%
3.	Undecided	—	—	—	—
4.	Dislike	10	8	18	36%
5.	Strongly dislike	4	25	29	58%
	Total	15	35	50	100%

TABLE-11 : Showing 'Attitudes of Teachers towards Sterlizatic n (Females).'

S.No.	Attitude	No. of Degree College Teachers	No. of P.G. College Teachers	Total No.	Percentage
1.	Strongly Like	—	—	—	—
2.	Like	2	1	3	6%
3.	Undecided	—	—	—	—
4.	Dislike	9	12	21	42%
5.	Strongly dislike	4	22	96	52%
	Total	15	35	50	100%

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OBSERVATIONS

1. The above tables clearly show that the teachers attitude strongly disliked the 'sterilization' males and females.

2. Only three teachers liked the 'sterilization' (both males and females.)

3. None of the teachers either 'strongly liked' or 'undecided about the sterilization (males and females).

TABLE-12 : Showing 'Attitude of teachers towards observing complete abstinence from sex indulgence'.

S.No.	Moral Abstinence to be observed	No. of cases	Percentage
1.	By the age of 30 years	1	2%
2.	By the age of 35 years	3	6%
3.	By the age of 40 years	20	40%
4.	By the age of 45 years	25	50%
5.	By the age of 50 years	—	—
6.	By the age of 55 years	1	2%

OBSERVATIONS

1. The attitude towards observing complete abstinence from sex indulgence were also measured. We have seen that Mahatma Gandhi, the father of Indian Nation, was of the opinion that complete abstinence from sex indulgence should be observed at the age of forty years.

2. In the present report, one of the teachers was of the opinion that complete abstinence should be observed from the age of 30 years. Thirty were of the opinion that it should be observed after the age of 35 years. Twenty recommended that it should be observed by the age of forty while twenty five teachers were of the opinion that at the age of 45 years, complete abstinence should be observed.

3. None of the teachers was of the poinion that moral abstinence should be never observed.

4. Thus, this can be concluded that teachers belonging to intellectual class were against indulging in sex relations without any restrictions.

CONCLUSIONS AND SUGGESTIONS

On the basis of the above discussion, we can conclude :

1. the attitude towards limitation of family conditioned by the ideas of different teachers regarding the ideal number of children that couple should have.

2. The large family is undesirable.

3. Most of the teachers strongly liked planned parenthood. On the contrary from such studies on villagers we find that most of them did not approve the idea of family planning.

4. Most of the teachers strongly disliked intentional abortions as a means of controlling birth.

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5. The attitudes towards sterlization of both the males and females were also negative

6. That 75% teachers used various contraceptives, 40% ussd the rubber contraceptive. and none of the teachers used the chemical methods.

7. The teachers passes favourable attitudes towards female-planning although many them liked to limit the family through moral abstinence.

To make the family planning movement in India successful, there is a great need of encouraging such studies for measuring the sttitudes of the people towards family-planning. The prospects for the Family Programme in India appear to be fairly bright.

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EXTRAVERSION-INTROVERSION AND ANXIETY IN ASTHMATIC CHILDREN

Asha Nigam[1], Dolly Nigam[2], V. B. L. Saxena[3], and S. B. Singh[4]

In present study an effort has been made to study extraversion-introversion and anxiety in asthmatic children. The result are compared with another three groups of behaviour problem, somatic illness and normal children. Each group comprises of 35 children. Findings reveal that asthmatic children are more introvert than those of normal children and children suffering from behaviour problems and somatic illnesses. As regards anxiety results reveal maximum score is obtained by the group of behaviour problems. And next to it are, other children of asthmatic problem.

INTRODUCTION

A review of the existing literature regarding asthma reveals that emotional factors play an important role in this disease. Many of the writers have claimed a typical personality pattern in asthmatics but many of them have refuted the claim. Number of studies are carried out taking the personality of the asthmetic patients into considerations.

Chobat, R. Spadave-Cchia, R. and Desanctis (1939), Dess, S. (1945), Fine, R. (1948), French, T. M., Alexander, F., *et al.* (1941), Rogerson, C. H., Hardcastle D. H; and Dugid K., (1935), Salter, H. H. (1882), Strokes, J. H. and Beerman, H. (1940), Strauss, E. B. (1935), Vles, V. S; and Groen, H. (1951) Urlken-Jensen, K. Waal N; Farup, B. and Bulow, K. (1951) are of the opinion that asthmatic patients displays a distinctive personality pattern. They also agree that the personality of the asthmatic children is characterised by over anxiety, lack of self-confidence, deep seated dependency and other psychoneurotic difficulties.

Esyenck and Eysenck's (1969) in a series of studies suggest that individual differences in behaviour, whether in social situations or in the laboratory, could be described with reasonable accuracy in terms of two measure dimensions of personality, *i. e.* Introversion-Extraversion and neuroticism that stability or emotionality verses non-emotionality. Other writers have used different terms. Sometimes anxiety has also been used for neuroticism.

In the present study an effort has been made to study the introversion-extraversion and anxiety in asthmatic children in comparison to the children suffering from behaviour problems and somatic illnesses.

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2. Department of Psychology, N. R. E. C. College, Khurja.
3. Department of Psychology, P. P. N. College, Kanpur.

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TABLE-1 : Showing Age, Sex, Education and Socio-economic strata of all the groups.

Classification	Asthmatic				Behavioural Problems				Somatic				Normal			
12yrs. to 15 yrs.	7-12yr.	13yr.	14yr.	15yr.	12yr.	13yr.	14yr.	15yr.	12yr.	13yr.	14yr.	15yr.	12yr.	13yr.	14yr.	15yr.
Age	10	9	8	8	9	10	8	8	8	10	9	8	9	8	9	9
	Male		Female		Male		Female		Male		Female		Male		Female	
Sex	20		15		20		15		20		15		20		15	
	Class				Class				Class				Class			
	VII	VIII	IX	X	VII	VIII	IX	X	VII	VIII	IX	X	VII	VIII	IX	X
Education	9	8	10	8	8	9	8	10	10	9	8	8	9	8	9	8
	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	
Socio-Economic Strata	6	14	8	7	—	8	13	8	6	—	7	15	7	6	—	8	13	9	5	—

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Material and Method: The sample of this study comparises of 35 asthmatic children and 35 cases of behaviour problem referred to Child Guidance Clinic and 35 cases of somatic illness were taken from children hospital, department of Pediatrics, G. S. V. M. Medical College Kanpur. 35 normal subjects were also worked out for the purpose of comparison. All the four groups were almost matched on age, sex, education and socio-economic status as given in Table-1 (Page 77).

All the four groups of children were administered High School Personaliity Qnestionnaire of Cattell and Beloff (1962) Hindi version by Kapoor and Mehrotra (1967). The data obtained has been subjected to statistical analysis and the results are given below.

RESULTS AND DISCUSSION

TABLE-2 : Showing comparison of anxiety in different groups.

(1)	Asthmatic	Normal	S.D.	C.R	Level of Significance
	58.86	42.17	2.38	7.01	0.01 (H.S.)
(2)	Behaviour Problem	Physically Sick			
	63.60	43.10	3.19	6.43	0.01 (H.S.)
(3)	Asthmatic	Behaviour Problem			
	58.86	63.60	3.28	1.44	N.S.
(4)	Asthmatic	Physically Sick			
	58.86	43.00	3.19	4.99	0.01 (H.S.)
(5)	Behaviour Problem	Normal			
	63.60	42.17	2.40	8.93	0.01 (H.S.)
(6)	Physically Sick	Normal			
	43.00	42.17	2.26	.37	N.S.

The Table No. 2 reveals that asthmatic children were higher than normal but lower than behaviour problem on anxiety score. The difference between the two is highly significant. Physically sick children have scored lower than asthmatic children on anxiety. Thus, it is obtained that anxiety level of asthmatic children more than normal and physically sick children but less than the children of behaviour problem.

The children having behaviour problem are highest on anxiety score among all the groups under study. Physically-sick children do not differ from normal children on anxiety score.

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TABLE-3 : Table showing comparison of Intorversion-extraversion on scores in different groups.

(1)	Asthmatic	Normal	S.D.	C.R,	Level of Significance
	49.03	55.37	2.01	3.10	0.01 (H.S.)
(2)	Behaviour Problem	Physically Sick			
	54.91	52.03	2.34	1.23	N.S.
(3)	Asthmatic	Behaviour Problem			
	49.03	54.91	2.09	2.81	0 01 (H.S)
(4)	Asthmatic	Physically Sick			
	49.03	52.03	2.38	1.26	N,S.
(5)	Behaviour Problem	Normal			
	54.91	55.37	1.96	.23	N S,
(6)	Physically Sick	Normal			
	52.03	55.37	2.27	1.47	N.S.

As regard the Intro-extra version it is obtained that asthmatic children have scored lower than normal, behaviour problem and physically sick children. There is no significant difference between normal and behaviour problem, physically sick and normal and behaviour problem and physically sick. Asthmatic children have scored significantly lower than physically sick and behaviour problem. It suggests that cases having psychosomatic problem are comparatively introvert in their personality.

Most neurotics are decidedly above average on anxiety. The same has been found in the present investigation also. Children having behaviour problem have scored highest on the anxiety. Conversion hysteria, neurotics and psychosomatic are not particularly high on anxiety.

Asthmatic children are also found significantly low on introversion in comparison to children of behaviour problem, physically sick and normal. This suggests that asthmatic children avoid social interaction and are inhibited. Chobat *et al.* (1939) found allergic children slightly submissive and introvert. Jacobe *et al.* (1967) reported allergic significantly more submissive and less assertive. Rosenthal *et al.* (1973) have also found asthmatics significantly more submissive and humble.

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It may be concluded that asthmatic children are less anxious than neurotic. There anxiety is likely to be converted into hysterical or somatic symptoms (Psychosomatic). Being introvert in their personality they do not give outlet to their feelings and emotions. It suggests that an introvert individual with lower anxiety score has got higher chances of de veloping psychomatic than neurotic problems.

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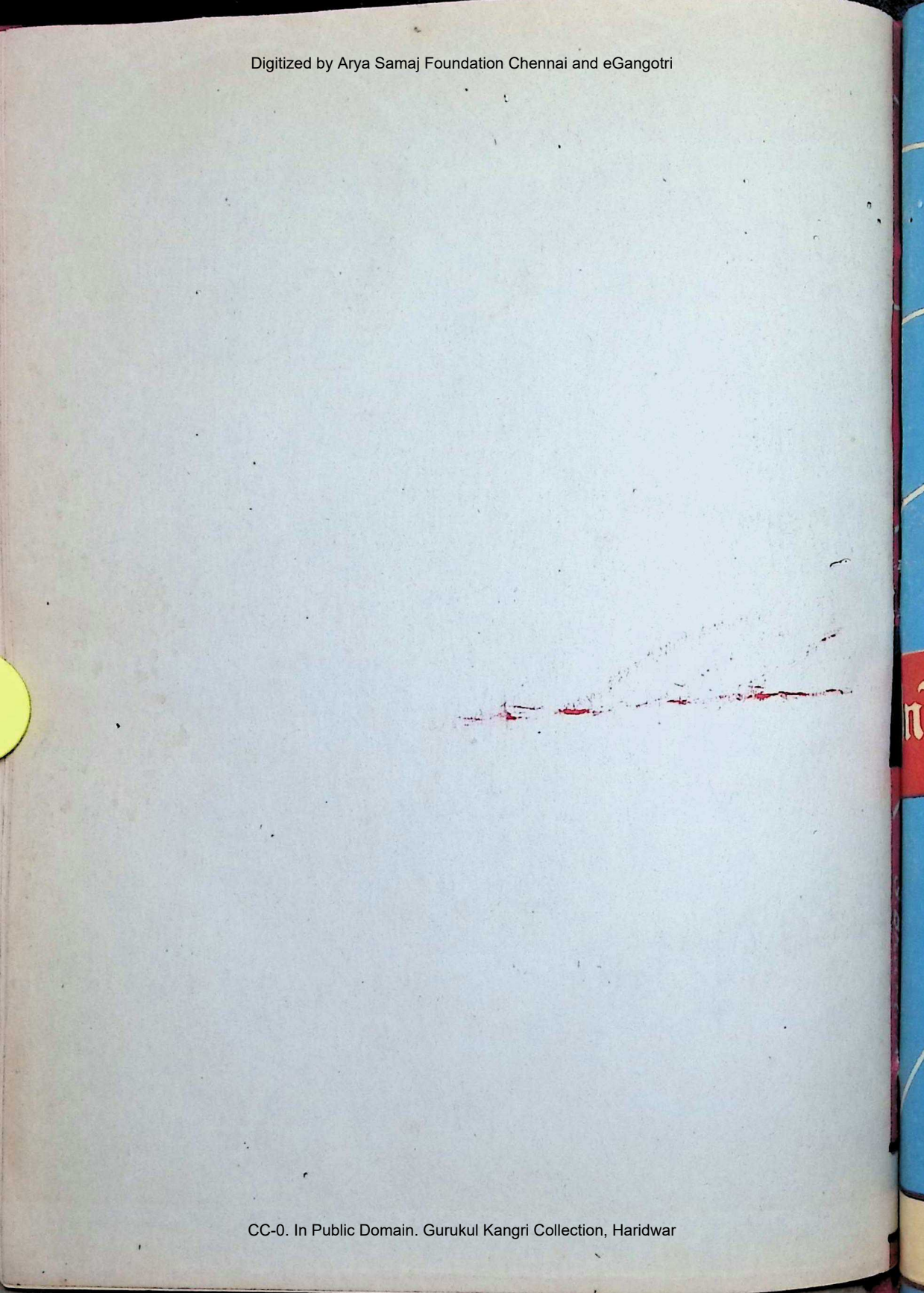

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STUDY OF JOB PERFORMANCE OF VILLAGE LEVEL WORKERS OF DELHI AND ITS RELATION TO THEIR CERTAIN PERSONAL CHARACTERISTICS

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60 village level workers from all the five blocks of Delhi were randomly selected. Their job performance (dependent variable) and also their age, education, extension work experience, job satisfaction and job interest (independent variables) were studied. The main findings were that the V. L W's attended more to office work and planning work than educat onal, organizational an supervisory work. Their job performance was significantly and positively correlated with their job interest. The extent of variation caused by the independent variables on the dependent variable was 24.79%. The V. L W's were highly dissatisfied in regard to supply of inputs, their salary and promotion. They were least interested in work related to Cooperatives, Panchayats, Rural Youth Clubs, and Functional literary programmes.

Introduction :

With the inception of the community development programme in India in 1952, Village Workers (V. L. W's) were posted in villages to look after the village development work. A village level worker is a multi-purpose functionary supposed to translate into action various rural development programmes (including agricultural development) in the circle, consisting of a few villages. He is the contact-person in the village, meeting village people and as such acting as a link between village and the development deprtments.

However, a few years of operation of the community development programme pointed out the inadequacy of V. L. W's job performance. Much was expected of him but he achieved little. This is evident from the report of the Programme Evaluation Organization (1956) that there was a gap between what a V. L. W. was expected to do and what he is actually doing in the field. Morover, research studies by Sen Gupta (1966), Chowkidar (1968), Kherde (1972)

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and others have found that job performance of village level workers is not effective. It has also been reported that V. L. W's have negative attitudes (Dhillon, 1963) and are very much dissatisfied (Chakravarti, 1971). Considering these things, the V. L. W's are considerd to be worthless persons, so much so that the state of Haryana has very recently abolished all the posts of V.L.Ws and has assigned them other work. Likewise, other states may follow the suit. But at the same time, it may be pointed out here that a few recent research findings (Akhouri, 1973; Shete, 1974) have shown that the village level worker and farmer contact is very close. This poses a serious problem before extension workers, Scientists, Social Workers, farmers, planners, and administrators engaged in rural development work, as to why the credibility of a V. L. W. in village development work has gone down inspite of being so close to the villagers. To tackle this problem it is necessary not only to study the effect but also the cause, not only to study the job effectiveness of V. L. Ws (as many research workers have already done) but also the infrastructure of values, interests, attitudes, needs and other personal characteristics, which are of basic importance in relation to professional competency and job perfomance of the workers (Super & Crites, 1962).

Keeping the above stated problem in view, the present study was planned with the **over all objective** of studying certain personality characteristics of the village level workers of Delhi and to relate it with their job performance.

The *specific objectives* of the study were as follows :

(i) To study the job performance of the village level workers of Delhi--in different job areas and overall.

(ii) To study the inter-relationships between age, extension, work experience, job satisfaction and job interest of the village level workers.

(iii) To study the relationship between job performance of the village level workers with their age, education, extension work experience, job satisfaction and job interest.

(iv) To study the per centage of variation caused in the job performance of the village level workers by afore-stated other variables.

(v) To study the areas of job satisfcation and job dis-satisfaction of the V. L. W's.

(vi) To study the job areas in which they are interested and disinterested.

Scope and Importance of the Study : Development in India at a village level largely depends on the effectiveness of job performance of the village level workers. The present study will reveal the profile of the village levels workers in relation to their job performance. This would, obviously, assist the Development Block officials and other extension personnel and autorities associated with the village development work in identifying the existing level of job performance in relation to their age, education, previous experience, job satisfaction, job interest, and job values. Accordingly, the authorities can take suitable step to improve the level of job efficiency of the village level workers working under them.

DESIGN AND METHODOLOGY

Sample : The sample of the study consisted of 60 village level workers of the Delhi—12 from each of the 5 Rural Development Blocks, namely Shahdra, Mehrauli, Nazafgarh,

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Khanjawla and Alipur. The selection of respondents from each of the Blocks was done randomly. In addition, 5 Block Development Officers, (One from each of the Blocks) were also included in the study for assessing job performance of the village level workers working in their respective blocks.

It was an ex-post-facto design of study with job performance of the village level workers as the dependent variable and their age, education, experience in extension work, job satisfaction and job interest as independent variables.

Tests and Tools of the Study : The tests and tools which were used in the study were as stated below :—

Variable	*Tests/Tools*	*Respondents*
Job Performance	Kerdes (1972) Rating Scale.	B. D. Os.
Job Interest	Self Prepared Interest Inventory	V. L. Ws
Job Satisfaction	Self-Prepared Job Satisfaction Scale.	V. L. Ws.
Education	Trivedi's (1963) Socio-Economic Status Scale (Education Part).	V. L. Ws.
Age Experience	Self-prepared Schedule.	V. L. Ws.

PROCEDURE

Pilot Study : A preliminary study was conducted to develop tools of the study and to pre-test them before final use.

Final Study : Data collection was done by the investigator himself by visiting the respective Block Headquarters. Job Interest Inventory, Job Satisfaction Scale, Trivedi's Socio-economic status scale (education part) were adminstered in group over the village level worker in each block. The Block development officers were contacted seperately and were asked to give the rating about the job performance of the village level workers working under them, the said job performance rating scale.

RESULTS AND DISCUSSION

Job Performance : The job performance scores in the seven different job areas namely education, service, supervision, organization, office job, planning and supply were analysed. The scores in each of the areas and also in over-all job performance (tnat is all areas together) are given in table below :

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TABLE-1

Mean scores in different job areas of the V. L. W's.

S. No.	*Job Area*	*Mean Score*
1.	Education	8.62
2.	Service	8.93
3.	Supervision	8.70
4.	Organization	7.89
5.	Office Job	9.27
6.	Planning	9.05
7.	Supply	8.95
	Over-all	8.77

From the above table, it is evident that the mean values in seven job areas differed from each other. In order to find out whether these differences were significant, one-way analysis of variance was computed and the results are given in the following table.

TABLE-2

One way analysis of variance based on job performance scores of 60 V. L. W's in seven job area.

Source of Variation	*df*	*S. S.*	*M. S.*	*F. Value*
Replications	59	348.81	5.91	
Job Areas	6	71.82	11.97	10.87*
		389.79	1.10	
Error	354	810.43		
Total :	419			

* Significant at .01 level of confidence.

The results given above showed that the job areas differed from each other significantly. However, in order to find out as to in which comparisons of the job areas, there were significant difference, the mean differences were computed and its significance determined by observing whether it was less or more than the aritical difference value (.37). The results are shown in the following table:

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TABLE-3

Comparison between mean scores of different job areas.

S. N.	*Comparison between*	*Respective mean values*	*Mean difference*
1.	Education Vs. Service	8.62 Vs. 8.93	0.31
2.	Education Vs. Supervision	8.62 Vs. 8.70	0.08
3.	Education Vs. Organization	8.62 Vs. 7.89	0.73*
4.	Education Vs. Office Job	8.62 Vs. 9.27	0.65*
5.	Education Vs. Planning	8.62 Vs. 9.05	0.43*
6.	Education Vs. Supply	8.62 Vs. 8.95	0.33
7.	Service Vs. Supervision	8.93 Vs. 8.70	0.23
8.	Service Vs. Organization	8.93 Vs. 7.89	1.04*
9.	Service Vs. Office Job	8.93 Vs. 9.27	0.34
10.	Service Vs. Planning	8.93 Vs. 9.05	0.12
11.	Service Vs. Supply	8 93 Vs. 8.95	0 02
12.	Supervision Vs. Organization	8.70 Vs. 7.89	0.81*
13.	Supervision Vs. Office Job	8.70 Vs. 9.27	0 57*
14.	Supervision Vs. Planning	8.70 Vs. 9.05	0.35
15.	Supervision Vs. Supply	8.70 Vs 8.95	0.25
16.	Organization Vs. Office Job	7.89 Vs. 9.27	0.38*
17.	Organization Vs. Planning	7.89 Vs. 9.05	0.16
18.	Organization Vs. Supply	7.89 Vs. 8.95	1.06*
19.	Office Job Vs. Planning	9.27 Vs. 9.05	0.22
20.	Office Job Vs. Supply	9.27 Vs. 8.95	0.32
21.	Planning Vs. Supply	9.05 Vs. 8 95	0.10

* Significant at 0.05 level.

The above table shows that job performance of the village level workers in regard to educational was significantly superior than organizational work but significantly inferior than planning work and office work. As regards organizational work, it was given less attention than the work related to service, supply and supervision. However, supervision was given less attention than office job. Thus, we find that office job and planning were given significantly more attation by the V. L. Ws. than educational, organizational and supervision work, which were of vital importance. But Sen Gupta (1966) and Kherde (1972) found that the V. L. W.'s gave less importance to office work than educational and organizational work.

Job performance of the V. L. W's of different blocks—The average job performance score of a V. L. W's. of each of the 5 Rural Development Blocks was computed and it were as given in following table No. 4.

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TABLE-4

Job Performance of V. L. W's. of five blocks.

S. N.	*Name of Block*	*Mean Score of V. L. W.*
1.	Alipur	10.63
2.	Kanjhawla	10.85
3.	Mehrauli	6.34
4.	Nazafgarh	10.18
5.	Shahdra	5.86

The mean scores of different Blocks differed. However, on computation of *t*-test, it was discovered that mean scores if Alipur, Kanjhwala and Nazafgarh Blocks did not differ significantly from each other. Similarly, mean score of Mehrauli and Sharda Blocks did not differ significantly but the mean scores of these two blocks differed significantly from each of the other three blocks. Therefore, the job performance of V. L. Ws. of Alipur, Kanjhwala and Nazafgarh Blocks was good but that of Mehrauli and Shahdra blocks it was poor.

Inter-relationship between independent variables---In order to find out the relationship between the five independent variables, all possible correlation coefficient values were computed and are shown in the inter-correlation matrix below.

TABLE-5

Inter-correlation matrix between independent variables.

Age	*Education*	*Experience*	*Job Satisfaction*	*Job Interest*
Age	—7490*	.9122*	—.0685	.2475
Education		—.7774*	.1549	—.2383
Experience			—.1387	.3096**
Job Satisfaction				—.1874
Job Interest				

* Significant at .01 level. **Significant at 0.05 level.

From the data in table-5, it is observed that V. L. Ws' age was significantly and negatively correlated with their education. Moreover, their experience of extension work was significantly and positively related with their age and job interest but significantly and negatively correlated with their education.

Job-performence as related to other variables : The overall job performance scores (combining all the seven job areas) of the 60 V. L. Ws were correlated with their scores in regard to age, education, extension work experience, job satisfaction and job interest and the results are given in the table No. 6 on Page 7.

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TABLE-6

Correlation between Job Performance Scores of the V. L. W's. with their other variables.

S. N.	*Independent Variable*	*Corrlation Coefficient Value with Job performance*	*Remark*
1.	Age	.0792	N. S.
2.	Education	.1062	N. S.
3.	Extension Work experience	.0056	N. S.
4.	Job Satisfaction	.1925	N. S.
5.	Job Interest	.3266*	Significant at .01 level.

From the above table it is evident that age, education, extension experience and job satisfaction of the V. L. W's. was not significantly related to their job performance. These results are in agreement with that of Sen Gupta (1966) and Salvi & Dudham (1967) in that age of V. L. W's. was not significantly related with their job performance. But the findings of the present study are at variance with that of Kherde (1972) who found that there was significant and positive correlation between age and job performance of the V. L. Ws. As regards non-significant correlation between extension work experience and job performance of V. L. W's. the present finding again tallies with that of Salvi and Dudhani (1967).

However, the results in table-6 showed that the job interest scores of the V. L. W's. were positively and significantly correlated with their job performance scores. The correlation coefficient value was ofcourse moderate. This implies that the more the job interest of the V. L. W's. the better was their job performance. In a study Mahi Pal (1975) found significant relation between interest of Multipurpose cooperative society leaders with their role performance.

Further, in order to find out the extent of variation in job performance of the V. L. Ws. caused by the said independent variable, that is age, education, extension work experience, job satisfaction, interest, multiple correlation and partial regression values were computed and the results are given in the following table :

TABLE-7

Multiple Correlation and Partial Regression of Job Perfomance and the Independent Variables.

S. N.	*Independent Variable*	*Partial Regression Coeff. (p-value)*	*Remark*
1.	Age	1.7808	N. S.
2.	Education	1.5978	N. S.
3.	Extension work Experience	—1.0670	N. S.
4.	Job Satisfaction	1.7354	N. S.
5.	Job Interest	3.2788*	Sig. at .01 level.

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The results given in above table show that 24.79% of variation in job performance of the V. L. Ws was caused by their 5 characteristics, namely, age, education, extension work experience, job satisfaction and interest.

The table further shows that of the said 5 characteristics, only job interest contributed significantly in bringing variation in the job performance of the V. L. Ws. When this variable namely, job interest was regressed on the dependent variable, that is job performance, it was found that it caused 10.66% variation in their job performance.

Job Satisfaction and Dis-Satisfaction—The rating scores of all the V. L. Ws on each of the 30 items of the scale of job satisfaction were averaged out. On this basis ranks were given to all the items. The first three and last three ranks from highest to lower side are stated in following table :

TABLE-8

Areas of Job Satisfaction and Dis-Satisfaction of V. L. Ws.

Rank	*Scores (Out of 150)*	*Description of the Area*
I	121.23	Cooperation from Pusa Scientists.
II	109.15	The amount of time devoted to job.
III	105.08	Supervision of the work by higher officers.
XXVIII	92.25	Quality, Quantity and timely supply of inputs.
XXIX	83.33	Opportunity for promotion.
XXX	75.19	Present salary.

From the above table, it appear that the V. L. Ws. were mostly satisfied with regard to their work and supervision and cooperation from others but they were least satisfied in regard to their service conditions such as promotion, salary. Sarkar and Patnaik (1967) also reported that the village level workers attached maximum importance to their salary and opportunities for promotion.

Job Interestedness and Disinterestedness—The scores obtained by all the V. L. Ws. on each of the 15 items of job interest inventory were totalled and its mean value calculated and on that basis first and last three ranks were noted to find out the dominant areas in which they were intersted and also those areas in which they were least intersted. It is given in following table:

TABLE-9

Areas of Most Interested and Least Interested Job Areas.

Rank	*Score (Out of 75)*	*Description of the Area*
I	60.52	Supervision of farming operations in field.
II	59.27	Distribution of farm literature and bulletins.
III	53.18	Communication of farmers' problems to Scientists.
XIII	39.34	Functional literary progarmme
XIV	35.56	Assistance to Panchayasts, Cooperatives, Banks & Schools
XV	20.23	Youth Club activities.

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Thus, from the pattern of most dominant and least dominant job interest of V. L. Ws, it can be inferred that their interests were confined mostly to farming work and very less to the work related to the village institutions and organizations, youth clubs and functional literacy.

CONCLUSIONS AND SUGGESTIONS

From the foregoing discussion, the following conclusions may be drawn :

(1) The job efficiency of the village level workers in seven different job areas from highest to lowest was respectively in the areas of office job, planning, supply, service, supervision education and organization.

(2) The village level workers gave significantly more attention to office work and planning work than educational, organizational and supervisory works.

(3) The job performance of the V. L. Ws. of Kanjhawla Block was best. Next in order of job efficiency were the V. L. Ws. of Alipur, Nazafgarh, Mehrauli and Shahdra Blocks.

(4) Experience in extension work of the V. L. Ws. was significantly and positively related with their age and interest, but significantly and negatively related with their education.

(5) Significant and negative correlation was found between their age and education.

(6) Job performance of the V. L. Ws. was significantly and positively correlated with theiry job interest.

(7) The afore-stated five independent variables of the study together contributed to the extent of 24.79% variation in the dependent variable, that is job performance of the, V. L. Ws. The significant variation caused by job interest of the V. L. Ws. in their job performance was to the extent of 10.66%.

(8) The dominant areas of job satisfaction of the V. L. Ws. were in regard to cooperation with scientists, time devoted by the V. L. Ws. to their work and their supervision b higher officers. But they were highly dissatisfied in respect of supply of inputs, and their salary and promotion.

(9) The V. L. Ws. were mostly interested in such job areas as supervision of farming, distribution of literature and communication with farm scientists. But they were highly disinterested in work in regard to rural institutions and organizations, youth clubs andy functional literacy.

From the aforestated conclusions, following suggestions may be given in regard to job performance and related matters :—

(1) The V. L. Ws. should devote more attention to educate, train and supervise farmers in the field than to work in block office.

(2) The job performance of the V. L. Ws. Mehrauli and Shahdra Blocks was poor and needed attention by the concerned authorities.

(3) The authorities should motivate interest of V. L. Ws. to perform their job effectively b giving suitable rewards and recognition.

(4) The salary and promotion chancas of V. L. Ws. were meagre and need to be increased for bringing job satisfaction in them.

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(5) The V. L. Ws. should be encourged to work in collaboration with village Panchayats, Cooperative Societies, Banks, Youth Clubs and functional literacy programmes in the village for achieving greater success in the village development work.

The application of afore-stated suggestions given on the basis of present research will go a long way to improve job efficiency of the village level workers and consequently the rural development.

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A STUDY OF JOB INVOLVEMNT IN RELATION TO CERTAIN DEMOGRAPHIC VARIABLES AMONG WHITE COLLAR WORKERS

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Relationship of job level, age, length of service, salary, educational qualifications and background with job involvement (JI) were investigated on a sample of 70 male white collar employees of State Public Works Department. From the analysis of data, it is concluded that high job level, higher age, higher salary and longer length of service lead to high JI. Educational qualification is negatively related to JI and workers with rural and urban background do not differ in JI. The interpretation of results and suggestions for further research have been given.

Introduction :

In the recent years, the concept of job involvement (JI) has steadily gained importance because of its pivotal role in providing a link between productivity on the one hand and employee needs and the quality of working life on the other (Hall & Lawler, 1970 ; Walton, 1972 ; Dewhirst, 1973).

Throughout the literature, many different terms have been used to describe JI such as : **central life interests, work involvement, ego-involvement, occupational involvement, intrinsic, motivation etc.** Rabinowitz & Hall (1977) has argued that there is a great deal of conceptuanal confusion and proliferation of terms in our theorizing about this construct of JI. After careful analysis, they pointed out that this construct has been as a (i) Performance-self-esteem contingency and (ii) Component of self-image. The first class of definitions might be considered as the extent to which self-esteem is affected be level of performance (e. g. Lodhal & Kejner, 1965). Such series of definitions describe the job-involved person as one for whom work is very important part of life (as central life interest). The second class of definitions present a conceptual way of describing JI as "the degree to which a person is identified psychologically with his work of the importance of work in his total self-image" (Lodhal & Kajner, 1965, p. 24). This concept

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of JI has been the main spring energizing the symbiotic relationship between JI, performance, and the quality of working life because individuals who have their ego-development tied into job have a higher stake in performing well and there is often a strong desire to satisfy the need for ego-identity and development in their jobs.

Although the theory leading to identification of factors affecting job-involvement (JI) is not well-developed (Mckelvey & Sekaran, 1977), JI has been viewed in three ways: as an situationally determined variable, as an individual difference variable and as person-situation interaction variable (Rabinowitz & Hall, 1977). The research on JI as a personal characteristic has attempted to relate it to such personal demographic factors as age, education, marital status, sex, locus of control, length of service, higher order need strength, job level etc. The findings are contradictory and no clearcut pattern emerges (Rabinowitz & Hall, 1977).

The evidence on age-involvement relationship is mixed between studies showing non-significant differences among age group (Mannheim, 1975; Gurin *et al.* 1960) and those that found increases in JI as individuals get older (Schwyhart & Smith, 1972; Jones, James and Bruni, 1975; Hall and Mansfield, 1975). Studies on education-involvement relationship have also provided mixed results. While Siegal & Ruh (1973) and Jones *et al.* (1975) reported no relationship between education and involvement, Ruh & While (1974) domonstrated that JI was negatively related to education for rank and file workers. In contrast, Mannheim, (1975) reported positive relationship between these two variables. Further, Lodhal & Kejner (1965) found no relationship between marital status and JI, Robinowitz (1975) found higher average involvement for men than women. However, when the effects of job level and length of service were removed, sex difference in JI disappeared. Perhaps the length of time that a person has been on a job has something to do with his JI. While Jones *et al.* (1975) found positive relationship between these variables, Schneider, Hall and Nygren (1971), Schwyh art and Smith (1972) and Hall & Mansfield (1975) found no relationship between JI & tenure for sample of male middle managers, development scientist and engineers. With respect to job level-JI relationship also the findings are contradictory. Tannenbaum, (1966) and Mannheim (1975) reported, that individuals at higher ranks are more involved with their jobs, but Lodhal & Kejner (1965) and Robinowitz (1975) found that these two variables are unrelated. The majority of studied cited so far have either used the original or adapted versions of Lodhal & Kejner's (1965) job involvement scale.

In general, it can be concluded from the studies cited earlier that the issue of the relationship of various den ographic variables and JI is wide open even in Western settings. Further hardly an investigation has been conducted in this promising area of Psychology enquiry in Indian Cultural setting. It is expected that such a research shall help in testing the cross-cultural generality of findings obtained on Western samples. The purpose of this study was to investigate the relationship of JI to demographic variables such as job level, age, length of service, salary, educational qualifications, background etc.

METHOD

Sample : The sample ($N = 70$) was randomly drawn from the office staff working in the Head Office of State Public Works Department. Out of these 70 participants of this study, 28 were lower division clerks (LDC), 24 upper division clerks (UDC) and 18 were Office

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Assistants. Superintendents or Sectional Officers were not considered because their number was too small. All but six were males, 17 out of total sample of 70 were unmarried. In view of this in balance in the sample, 'sex' and 'marital status' were not considered as variables in this study. The staff from which the sample was drawn assists the Chief Engineer to perform all the managerial functions such as planning, staffing, directing, coordinating, monitoring and controlling etc.

Measures : The 20-item measure of JI developed by Lodhal & Kejner (1965) was employed. This is the most widely used instrument for assessing JI with test-retest reliability coefficient ranging between 0·72 to 0·89 (Lodhal & Kejner, 1965). The evidence on its convergent and discriminant validity has been provided by Goodman, Furcon & Rose (1968). Further, Saleh & Hosek (1976) has factor analyzed this scale and has found it multidimensional with at least three factors. Scores on this scale range from 20 to 100. The information on demographic variables was obtained through a self-developed questionnaire.

Data Collection/Analysis : The "measures" were administered individually to each respondent who was assured that information provided by him will be kept confidential and will be used only for research purpose. In the JI scale, agreement on statements 1,2,3,4,5,6,7,8, 9,11,12,15 and 20 showed job involvement, while agreement on statements 10,13,14,16,17,18 and 19 showed job uninvolvement. The scores on each statement with five-point rating scale ranged from 5 to 1 depending on whether statements were favourable or unfavourable. The data were analyzed for different demographic variables in term of means, standard deviations and critical ratios for testing the significance of difference between mean JI scores. The statistical analysis of data is reported in table 1.

TABLE 1

Mean Job Involvement scores as function of job level, age, educational qualifications, salary and length of Service on a sample of white-collar workers (Total No.=70)

Demographic Variables	*Mean*	*Standard Deviation*	*Difference between means*	*Critical Ratio*
A. Job level				
(a) L. D. C. (N=28	64 00	(M_1) 5·93	$M_1-M_2=5·67$	3·03**
(b) U. D. C. (N=24)	69·67	(M_2) 7·72	$M_1-M_3=6·60$	3·33**
(c) Assistants (N=28)	70·60	(M_3) 6·68	$M_2-M_3=0·93$	0·43
B. Age				
(a) Below 30 yrs. (N=32)	65·70	(M_1) 6·85		
(b) Above 30 yrs. (N=38)	69 80	(M_2) 7·17	$M_1-M_2=4·10$	2·41*
C. Salary : annual				
(a) Below 6000/- (N=33)	95·64	(M_1) 6·936		
(b) Between 6000/- and 10,000/- (N=32)	70·28	(M_2) 7·142	$M_1-M_2=4·64$	2·62**
D. Length of Service :				
(a) Under 5 yrs. (N=18)	63·39	(M_1) 6·68	$M_1-M_2=6·93$	3·54**
(b) Above 10 yrs. (N=38)	70·32	(M_2) 6·71		
E. Educational qualifications :				
(a) Matric (N=36)	70·50	(M_1) 6·42	$M_1-M_2=5·30$	3·24**
(b) Above Matric (N=34)	65·20	(M_2) 6·82		

* $P<·05$, ** $P<·01$

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RESULTS AND DISCUSSION

(a) *JI and Job Level*: A perusal of table 1 shows that mean JI scores of the groups at relatively middle (UDC) and upper job level (assistants) are significantly higher ($P<.01$) when compared to group at lower hierarchy (LDC). The difference in the mean JI between middle and upper hierachies is not statistically significant. There is obvious restriction in range of job hierarchy as there is not substantial disparity between job requirements of LDC's and UDC's. In general, JI seems to increase with rise in job level. The higher JI at upper job level may be due to the increased amount of control and influence a person has in regard to his work situation (Tannenbaum, 1966). Additionally, Lawler and Hall (1970) stated that "more people will become involved in a job that allows them control and chance to use their abilities than will become involved in jobs that are lacking these characterstics". Further, Hall (1971) has developed a model based on Lewinian concept of Psychological success, which proposes that more an individual job contains autonomy and challenge the more likely he is to become job involved.

(b) *JI and Age*: The mean JI of employees "above 30-years" is significantly higher ($P<.05$) than those "below 30-years". Most of the "below 30-years" employees were in lower job level and almost entire group of "upper level" was "above 30-years". This explains the similar pattern of results obtained between JI-job level and JI-age. Support of this finding is provided by studies of Schwyhart & Smith (1972), on a sample of middle managers, Jones *et al.* (1975), on civil service and military engineering employees, Hall & Mansfield (1975) and Mckelvey & Sekaran (1977), on samples on scientists and engineers. It seems that job becomes more important to the self-image of a person as he ages. It needs to be pointed out here that various studies cited, including the present study looked at the age-involvement relationship from one point in time or cross-sectionally, Rabinowitz and Hall (1977) has suggested that in order to learn more about this attitudinal variable, it would be helpful to focus on one group of workers who have shown high-and-low-involvement measurements at one point in time, and then to take subsequent measures of them as they progress up or down the organizational ladder or on different job.

(c) *JI and Educational Qualification*: It is clear from Table 1 that the mean JI for "matrics" is significantly higher ($P<.01$) than the corresponding mean for "above matric". It seems that "matriculates" could not hope for better job in the present circumstances. In contrast, "above matrics", especially graduates, seem to perceive their "present" job not befitting their educational qualification and hence seem to be less involved in their present job and more involved 'out side' the job. Ruh and White (1974) had also demonstrated that JI was negatively related to education for rank and file workers.

(d) *JI and Salary*: The mean JI for "below 6000/-" annual salary group is significantly lower ($P<.05$) than the group with annual salary "between 6000/- to 10,000/-". Thus JI and income are positively related. Higher income not only satisfies psychological and security needs, it also meets higher-order needs. Such higher need fulfilment is mostly perceived to stem out of job itself and hence job itself becomes intrinsically motivating. The higher income, usually, follows high job level and higher age. Thus JI-salary relationship follows the same trend as shown in JI-age, and JI-job level relationships, and all these results are complementary.

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(e) JI and Length of Service : The mean JI for group with length of service "above 10 years" is 70·32 and corresponding mean for group "below five years service" is 63·39. The difference is statistically significant at the ·05 level (Critical ratio=3·54). Thus JI increases with length of service (tenure). This finding taken together with earlier findings of this study show constant trend i. e. more age, longer length of service, generally high job level and consequent high income are all highly related to one another and with the JI. These findings are supported by Jones *et al.* (1975) study on samples of civil service and military employees.

In addition to the data reported in table 1, the mean JI scores for employees with urban (N=28) and rural (N=42) background were computed. The mean JI values were 67·6 and 68· respectively—which are virtually identical. It would seem to be of utmost importance to define what is means by "Urban versus Rural". Is it place of upbringing, 'present location' or 'plant location' ? Similarly, no statistically significant differences in JI were found for employees with "no dependents", "upto three dependents" and "more than three dependents".

Based on the findings of this study, a tentative profile of a job-involved white collar employees is that he is older, has higher job level, possesses job befitting his educational qualifications, draws better salary and has put in more number of years in service in the organization.

As stated earlier, the JI scores used in the study were obtained through Lodhal & Kejner's (1965) Inventory. Saleh & Hosek (1976) has shown that scores on this scale measure "central life interest" and "self-esteem" aspects of job involvement and not the other two aspects i. e. "active participation" and "self-concept". Further, Commings and Bigelow (1976) suggested that two statements in this inventory (10 and 11) may not be good measure of job attitudes of which JI is the significant factor. They found both these items to load relatively low on the JI. This low loading raises the possibility that these may not measure JI. The results of the present study need to be understood keeping in view these comments about the measure used for assessing the JI.

Most of the studies in the area of "Job-involvement" has been bivariate correlational field surveys. Hence, multi-variate studies are needed to help sort out spurious relationships. Since JI is to a great extent an individual difference variable, research on personality (e. g. locus of control) and cognitive characteristics will be useful. Similarly, further research is needed on the joint effects of individual and situational variables on job Involvement.

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ARE THE RELIGIOUS PERSONS MALADJUSTED ?

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The study was conducted on 100 College girls reading in Bhagalpur University. Bhushan's Religiosity Scale and Indian adaptation of Bell Adjustment Inventory were administered to measure religiosity and adjustment respectively. The obtained *t* between the two test-scores and the *t*-test applied between the adjustment scores of the extreme groups on religiosity indicated that the 'religious' *Ss* were significantly better adjusted them the 'non-religious' *Ss* in all the four areas of adjustment (i. e., home, health, social and emotional areas) as also in adjustment. The results are discussed in the background of psychoanalytic theories and the controversy relating to religiosity and adjustment has been explained.

Introduction

Attempts have been made to correlate religiousness with different needs and personality variables. They indicate as to what extent a religious person is psychologically and socially adjusted or maladjusted. But the results obtained are more contradictory of each other than being conclusive. The controversy goes back to the early psychoanalytic views of Freud and Jung. Freud (1934) described religiousness as a pathological symptom which had its roots in the helplessness of phallic stage of psychosexual development. In his words, "religion is the mass obsessional neurosis of mankind and is bound to disappear with the knowledge of reality." However religion could not wither away by the spread of scientific knowledge. Ironically enough the developments is psychoanalysis developed a belief that religion has psychotherapeutic value. Instead of curing man of religion, Jung started curing man through religion. To quote Jung (1961), "religions are psychotherapeutic systems in the truest sense oft he word———— they express the whole range of the psychic problem in powerful images." To him, the individual and social peace and happiness rest on cultivation of religiosity.

With the revival of interest in psychology of religion in the second half of this century, psychologists have used a number of objective tests to identify psychological dimensions of a religious person. In a comprehensive review Dunn (1965) concludes that religious persons are more perfectionist, withdrawn, insecure and depressed in comparison to the nonreligious

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individuals. Robert (1965) reports that religious persons score high on neuroticism scale. Similarly, certain studies have shown that religiousity correlates positively with anxiety (Brown, 1970; Dele & Jones, 1970; Dutt, 1970). But contrary to these findings, certain other studies do suggest that religious persons carry less anxiety and feeling of insecurity than the nonreligious ones (Bhushan et al, 1973; Williams & Cole, 1968) Mayo et al (1979) after correlating the scores obtained on MMPI with religiousness, have concluded that the religious men are significantly less depressed, less schizophrenic and less psychopathic deviant than the nonreligious men. Wilson and Kawamura (1967) have found that adjustment and social responsibility are possible correlates of religiousness. In a recent study Tiwari et al (1975) have found that high religious value oriented subjects (on Allport-Vernon test) have better pattern of adjustment than the low value oriented subjects.

One important reason for the conflicting findings appears to be the use of varying critenia identify religious persons. For some church attendance served as a criteria of religiosity (Fryenier, 1959) while some others emphasized the religious faith and values. But if a representative definition is accepted, religion has three aspects, i. e., practical, theoretical and emotional. A detailed discussion regarding them has been presented elsewhere (Bhushan, 1970). It is of interest to know as to whether religious persons in comprehensive sense of the term, are maladjusted or better adjusted than the non religious persons.

Method of Study

Sample : The present study was done on a sample of 100 girl students drawn randomly from a constituent Women's College of Bhagalpur University. Keeping in mind the significant possible effects of age, sex, education and SES (Bhushan & Sinha, 1971; Brown, 1970; Natraj, 1965), the sample was kept homogenous with regard to these variables. The subjects were all girls, reading in I. A. with their age ranging from 15 to 20 years.

Tests Used : Two different objective tests were used to measure Religiosity and Adjustment.

(*i*) *Bhushan's Religiosity Scale* : Bhushan's R-Scale (1971) used in the present study is a Five Point Likert type scale to measure religiosity. The scale contains 36 items, 11 of them being negative, to tap the theoretical, practical and emotional aspects of religiosity free from communal ritual and practices. The range of possible scores on the scale is from 36 to 180, higher scores indicating greater degree of religiosity. The test possess high reliability and validity.

(*ii*) *Mohsin-Shamshad's Adjustment Inventory* : This is an Indian adaptation (1970) of the famous Bell's Adjustment Inventory in Hindi. It contains 135 items and measures human adjustment in four different areas, such as, home, health, social and emotional. Three response categories are provided to each item and for each correct response a score of *1* is given. High score indicates *poor adjustment* in different specific areas. The Inventory possesses construct and concurrent validities and high temporal stability.

The two tests were administered separately on two consecutive days in small groups so that every subject took only one test at a time.[1]

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Results and Discussion

In order to examine the relationship between religiosity and adjustment, first of all the scores obtained on the Bhushan R-scale and the Adjustment Inventory were correlated. Table 1 presents the *r* values obtained.

TABLE 1

Relationship of Religiosity with Adjustment

Areas of Adjustment	*Obtained r with R-score*	*p-value*
Home	—·42	<·01
Health	—·43	<·01
Social	—·31	<·01
Emotional	—·62	<·01
Total Adjustment	—·45	<·01

It is evident from Table 1 that the *r* between the R-scores and the scores obtained on the different Adjustment scales as also the total adjustment are all negative and significant. Since higher score on the R-scale indicates greater religiosity and that on the Adjustment Inventory poor adjustment, the negative correlations suggest that the persons displaying more religiosity are better in adjustment.

In further confirmation of the findings, the extreme quartiles on the R-scores were selected. The 25 cases belonging to the highest quartile were identified as the 'Religious' group and the 25 cases scoring lowest on the R-scale constituted the 'Non-religious' group. Mean scores in total as well as in the different areas of adjustment were calculated and *t* test was applied to determine whether the means of the two groups differed significantly. Table 2 presents summary of the results.

TABLE 2

Comparison of the 'Religious' and the 'Non-religious' groups on adjustment.

Areas of adjustment		*Religious group*	*Non-religious group*	*t*	*p*
Home	*M*	5·18	9·04	3·27	·001
	SD	4·19	5·38		
Health	*M*	5·13	9·04	3·25	·001
	SD	4·27	3·63		
Social	*M*	14·27	17·77	2·08	·01
	SD	6·06	4·02		
Total	*M*	36·09	52·54	3·47	001
	SD	18·19	12·24		

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The results given in Table 2 show that in all the four areas of adjustment as well as in total adjustment, mean of the 'Religious' group is significantly lower than that of the 'Non-religious' group. In other words, the results demonstrate that the 'religious' persons' are significantly better adjusted in their home, health, social and emotional areas of life as also in their total adjustment. This confirms the correlational findings and extend strong support to the Jung's contention and earlier suggestive findings of Mayo *et al* (1970), Williams & Cole (1968) and Wilson *et al* (1968). The result refutes the conclusions of Brown (1966) Dutt (1970) and a few others according to whom the religious persons are significantly high in anxiety, depression and neuroticism. As stated earlier one important reason for the different findings is the varying criteria used to measure religiosity. If religiosity refers only to belief in religious rituals and practices, it may have a close relationship with underlying anxiety and feeling of insecurity (Bhushan *et al* 1873). But a person may mot observe the religious rituals and still he may be highly religious. The rituals are specific to co-communities and they cause at times communal tension which is wrongly attributed to religion. Religion is a binding force, it can not disintegrate people. And if religiosity is interpreted in a manner free from ritualistic practices of religious communities, it is not related to fear and anxiety (Templer, 1972). In the true sense the term, religiosity refers to "faith in a power beyond himself whereby he seeks to satisfy emotional need and gain stability of life, and which he expresses in acts of worship and service" (Galloway, 1956). The present test of religiosity is based on this concept and has worked well with persons of different communities. Faith in some power beyond this reality develops a sense of dedication and sacrifice on the part of the persons and gives him peace and satisfaction rather than anxiety and disturbances. It is no wonder, therefore, that the 'religious' subjects have been found to be significantly better adjusted in all import areas of life, much so in 'emotional adjustment' than the 'non-religious' subjects.

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NEW JOURNAL

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SCHOOL ACHIEVEMENT IN RELATION TO SEX, SOCIAL ADJUSTMENT AND FAMILY ADJUSTMENT.

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In this paper an attempt has been made to study the relation of (1) school achievement with (a) Social adjustment and (b) family adjustment, (2) the relation between social adjustment and family adjustment and (3) the relation of the sex of high achievers as well as low achievers with (a) social adjustment and (b) family adjustment. The study was made on a sample of 300 subjects, students of standards IX and X of high schools in semi-urban area. The χ^2 test and coefficient contingency 'C' tests were applied to test the significance of association between variables. Except in the case of relation between (i) sex and social adjustment (ii) sex and family adjustment among the low achievers the Hos were rejected at ·01 and ·05 level of significance. The results of this study should be interpreted in the context of this sample which was drawn from a semi-urban area.

Introduction :

It is an established fact that educational achievement of the child is immensely influenced by the environmental and personal factors like social adjustment, family adjustment, adjustment with the peers, school adjustment and several other adjustment processes. The child is brought up in the family, at the same time when his school education starts he comes into contact with the community at large. As a result the child has to develop behaviour patterns for adjustment within the family as well as with the out-side social world. The life is enriched if one can function adequately in the family and social or group situations. Difficulties in adjustment and dissatisfaction might result into several kinds of personality problems withdrawal, aggressiveness, antisocial tendencies like truancy and delinquency, loss of interest in studies etc.

All the factors affecting the educational achievement of the child are interrelated. If the child is well adjusted he is likely to achieve and develop his potentialities to the fullest extent. Any difficulty in adjustment or poor adjustment may result in the deterioration of his school and scholastic achievement. Several studies have been made concerning the effect of various factors on school achievement.

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Problem :

In the present paper an attempt has been made to study school educational achievement and its relationship with some variables such as sex, family adjustment, social adjustment among the high-school students. The null hypothesis are (i) there is not difference between the low achievers and high achievers in social adjustment as well as family adjustment (ii) There is no difference between the males and the females in social adjustment as well as family adjustment.

Procedure :

Sample : A sample of 300 students 150 high achievers and 150 low achievers was selected from schools in and around a taluka town in South Gujarat area. The sample was drawn from the student of standard IX and X classes who were promoted from the previous year's annual examination of standards VIII and IX respectively from the same school. For this study high achievers were defined as those students who ranked the first five among those promoted to the standards IX and X and low achievers were those students who ranked last five among the students promoted to standards IX and X.

Among the high achievers there were 76 boys and among 74 girls, among the low achievers there were 67 boys and 83 girls. The mean age of the high achievers was 14.63 years and that of long achievers was 16.56 years; the mean age of the sample was 15.53 years. The mean percentage of marks of the high achievers was 66.36 percent and that of low achievers was 34 60 percent.

Tools for Data Collection :

The personal data about age, sex, percentage of marks in the previous year's annual examination of the students were collected from the records maintained in the school. The levels of family adjustment and social adjustment were measured by administering family adjustment inventory and social adjustment inventory developed by Badami (1).

Statistical Analysis of the Data :

The coefficient of correlation contingency 'c' and X tests were applied for finding out the relationship between (i) the level of achievement and the social adjustment (ii) the level of achievement and the social adjustment and (iii) the relation between the family adjustment and the social adjustment, of the two groups. Tests were also applied to find the relationship between sex and the level of social and family adjustment in group as a whole and as well as the high achievers and the low achievers separately. The Ho were tested at the .01 or .05 level of significance. The analysis of the data have been persented in the tables-I, II, III, IV, V, VI, VII, VIII and IX in the appendix.

Results and Discussion :

In tables I and II, the X value 11.35 of the association between the level of achievement and social adjustment and X value 28.14 of the association between the level of achievement and family adjustment are significant at .01 level. The distribution of frequencies in both the tables indicate that there is positive relationship between the level of achievement and social adjustment, as well as between the level of achievement and family adjustment. That is the high achievers are better both in social adjustment and family adjustment than the low achievers.

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This supports the findings of several investigations (7.12) The High achievers occupy an advantageous position among the teachers, classmates and also in the family. The high achievers are admired and appreciated by many. So they are likely to have more satisfying and encouraging experiences in their social and family relations.

In table III the Ho is rejected and significant at .01 level of significance. There is positive and a very high correlation between social adjustment and family adjustment. That is those who are superior in social adjustment are superior in family adjustment also.

Table IV-V and VI present the data about relationship between sex and social adjustment. In the group as a whole the relationship between sex and social adjustment is not significant, (χ^2 value 2.01). Among the high achievers relationship between sexes and social adjustment is significant at .02 level, and the distribution of frequencies indicate that the girls are superior to the boys in social relations. While among the low achievers there is no significant difference between the boys and the girls in social adjustment.

The data in tables VII, VIII and IX about the sexes and family adjustment indicate more or less or similar trend. In the group as a whole the difference between the girls and the boys in family adjustment is significant at 0.05 level (χ^2 value 6·75), and that the girls are superior to the boys in their adjustment. Among the high achievers the girl are significantly superior to the boys in family adjustment, while among the low achievers the difference between the sexes in their adjustment is not significant.

The female group among the high achievers is between adjusted both in social and family adjustment, while among the low achievers the difference between the sexes is not significant. These trends are likely to result largely from psychological cultural factors rather than the biological. Generally the girls are more cooperative, soft-speaking and tolerant than the boys, and so are better than the boys in adjustment also. Among the low achievers perhaps the boys as well as girls experience equal degree of privation, rejections and frustration and hence there is no significant difference in their adjustment, social and family.

Conclussion :

(i) In Social adjustment the high achievers are superior to the low achievers.

(ii) In family adjustment the high achievers are superior to the low achievers.

(iii) Those who are superior in social adjustment are superior in family adjustment also.

(iv) In the group as a whole, the boys and girls do not differ significantly in social adjustment.

(v) Among the high achievers the girls are superior to the boys in social adjustment.

(vi) Among the low achievers the girls and boys do not differ significant by social adjustment.

(vii) In the group as a whole the girls are better than the boys in family adjustment.

(viii) Among the high achievers the girls are better than the boys in family adjustment.

(ix) Among the low achievers the boys and the girls do not differ in family adjustment.

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Suggestions for further study :

(i) With a larger sample the results could perhaps be more reliable.

(ii) It is worthwhile studying whether the area of residence rural or urban, socio-economic status of the parents have any relation with social and family adjustment of the child.

Limitation :

The sample of this study has been drawn from a semi-urban taluka town. and hence, the conclusion of the study should be interpreted in that context only.

APPENDIX

TABLE I

Social adjustment score of the High achievers & the Low achievers.

Social adjustment Score

Level of achievement	*I & II 55-66 and more*	*III 40 to 54*	*IV—V 29 to 39 and less than 29*	*Total*
H. A.	49	80	21	150
L. A.	27	100	23	150
Total	76	180	44	300

df : 2 'C'=190 χ^2=11·35

Significant at .01 level

TABLE II

Family adjustment Score of the High achievers & the low achievers

Family adjustment Scoro

Level of Achievement	*I More than 55*	*II 44 to 45*	*III, IV, V 33 to 43 27 to 32 and less*	*Total*
H. A.	67	77	6	150
L. A.	28	100	22	150
Total	95	177	28	300

df=2, C=.293 χ^2=28·14

Significant at ·01 level

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TABLE III

Relationship between Social adjustment and Family Adjustment.

Social adjustment Score

Family adjustment Score	*I—II*	*III*	*IV—V*	*Total*
I	50	30	15	95
II	20	135	22	177
III, IV, V	6	15	7	28
Total	76	180	44	300

$df=4$ C=·424 $\chi^2=65{\cdot}65$

Significant at ·01 level.

TABLE IV

Relation between Sex and Social Adjustment.

Social adjustment Score

Sex	*I—II*	*III*	*IV—V*	*Total*
Boys	35	84	24	143
Girls	41	96	20	157
Total	76	180	44	300

$df=2$ C=·081 $\chi^2=2{\cdot}01$

Not significant

TABLE V

Relation between Sex and Social Adjustment among the high achievers.

Social adjustment Score

Sex	*I—II*	*III*	*IV—V*	*Total*
Boys	22	42	12	76
Girls	27	38	9	74
Total	49	60	21	150

$df=2$, C=·223 $\chi^2=7{\cdot}825$

Significant at ·02 level

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TABLE VI

Relation between Sex and Social adjustment among the low achievers.

Social adjustment Score

Sex	*I—II*	*III*	*IV—V*	*Total*
Boys	13	42	12	67
Girls	14	58	11	83
Total	27	100	23	150

$df=2$, $C=\cdot075$ $\chi^2=\cdot869$
Not Significant.

TABLE VII

Relation between Sex and Family adjustment.

Family adjustment Score

Sex	*I*	*II*	*III—IV—V*	*Total*
Boys	36	93	14	143
Girls	59	84	14	157
Total	95	177	28	300

$df=2$, $C=\cdot148$ $\chi^2=6\cdot75$
Significant at ·05 level

TABLE VIII

Relation between Sex and Family adjustment among the high achievers.

Family adjustment Score

Sex	*I*	*II*	*III—IV—V*	*Total*
Boys	26	45	5	76
Girls	41	32	1	74
Total	67	77	6	150

$df=2$, $C=\cdot289$ $\chi^2=13\cdot37$
Significant at ·01 level.

TABLE IX

Relation between Sex and Family Adjustment among the low achievers.

Family adjustment Score

Sex	*I*	*II*	*III—IV—V*	*Total*
Boys	10	48	9	67
Girls	18	52	13	83
Total	28	100	22	150

$df=2$, $C=\cdot098$ $\chi^2=1\cdot46$
Not Significant.

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EFFECT OF PERSONAL FACTORS ON THE ESTIMATION OF A SHORT-FILLED TIME-INTERVAL OF TEN MINUTES

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Seventy under-graduate adolescents of Government Arts & Science College, Daman belonging to the age-group of 16-21 years were randomly selected from the population of 260 under-graduates to examine the effect of their personal factors (Religion, Inhabitation, Income, Educational achievements, Occupation, Birth-order and Sex) on the estimation of a short-filled time-interval of ten minutes. Since the data obtained was not normally distributed the extension of Median Test was used to compare the results. The results revealed that four out of seven personal factors (Religion, Inhabitation, Income and Educational achievement) affect the estimation of time whereas other three factors (Occupation, Birth order, and Sex) do not.

Introduction

All the experimental studies conducted in the field of time-estimation can be classified into two categories : (i) the studies related to the estimation of filled time-intervals and (ii) the studies related to the estimation of unfilled time-intervals. The filled time-intervals are those intervals in which *S* is presented some stimulus or some task for a definite given time and thereafter the *S* is asked to estimate that time for which the stimulus or the task was presented to him. The unfilled time-intervals are those intervals in which *S* is neither presented any stimulus for any task but the *S* is asked to estimate the given empty time-interval. The studies concerning the former category have shown that the estimation of time is affected by a number of factors like those related to personality, situation and the person as well.

Eysenck (1959), Claridge (1960), Lynn (1962) and Namdeo (1967) studied the effect of personality factors on time-estimation and observed a tendency of under-estimation in extroverts and of over-estimation in introverts but Mohan (1969) and Mohan Mann (1971) failed to find such a tendency. Gupta and Adya (1967) examined the effect of anxiety on time-estimation and found that high-anxious *Ss* differ from low-anxious *Ss* on the estimation of duration of time. Dubey and Sharma (1976) conducted a detailed study to examine the effect of manifest anxiety on the estimation of three longer time-intervals (20 minutes, 40 minutes, 60 minutes)

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and found that high-anxious *Ss* over-estimate the time and low anxious *Ss* under-estimate the time whereas moderately anxious *Ss* estimate the time almost accurately in all the three condition of the experiment. They, like Dubey (1975, 1976 a, 1976 b), verified the fact that the mechanism of manifest anxiety works differently for male and female *Ss*.

On the other hand, some other studies relating the personal and situational factors and time-estimation have shown that the phenomenon of time estimation is not only affected by the personality factors but by situational and personal factors also. Gulliksen (1927) reported in one study that time-estimation is affected by the occupation of the estimators. Berman (1939), in another study, pointed out that the time-estimation is the matter of estimator's degrees of satiation. Rosenzwieg (1933), Meade (1960) and Singh (1966, 1968, 1969 a) have shown in their studies that the time-estimation is highly affected by the need tension of the estimators. Further. Meade (1963) and Singh (1969) found the *identical results* in their *identical studies* that the degrees of motivation and knowledge of progress of work are important variables in affecting the estimation of time. Similarly, some other studies have also shown the influence of some other variables on time-estimation but the present author has not come across any such study in which the effect of all the possible personal factors on time-estimation has been examined. Thus, the present study was designed to examine the effect of seven personal factors (Religion, Occupation, Income, Birth order, Educational achievement, Inhabitation and Sex) on the estimation of a short-filled time-interval of ten minutes.

METHODOLOGY

(*a*) *Tools and Apparatus* : The Personal Information Proforma, devised by the author was used to identify the seven personal factors of the *Ss*. The Addition-charts were used to fill in the time-intervals to be estimated by the *Ss*. The stop-watch was used to measure the time. A pistol was used to make the dummy-shots as the marks of 'Start' and 'Stop' signals.

(*b*) *Sample* : A random sample of 75 under-graduate adolescents was drawn from the population of 260 under-graduate students of Government Arts and Science College, Daman. Two student-adolescents who were married and other two who were below or above the age-group of 16-21 years were dropped out from the sample. One more student who was the only student of Parsi religion was also eliminated from the sample. Thus, the final sample was comprised of 70 adolescents only.

(*c*) *Procedure* : All the *Ss* were brought to the biggest lecture theatre of the college which is sufficiently large to accommodate more than 150 persons at a time and were seated properly maintaining a distance of three feet from each other. Thereafter, they were supplied the Personal Information Proforma and were asked to fill in every column sincerely and honestly. They were also assured that their responses will be kept confidential. When all of them had filled in the Personal Information Proforma they were asked to be attentive to listen the following instructions.

INSTRUCTIONS

1. "Individual's personality and performance are highly correlated. The task for which you have been called here is related to your performance and time-estimation. Since, your performance and the time you would estimate would directly reveal your personality, you are

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required to be honest and sincere in performing the given task and in estimating the time you take in performing the given task. But, before that, you are requested to hand over your watches to the laboratory assistant. This will enable us all to conduct this study in a scientific way." Following this instruction, the *Ss* who had wrist-watches voluntarily handed over them to the laboratory assistant.

2. "Now your attention is called upon the second task. Look at the addition-charts given to you. You have to add the numbers of every line printed on the addition-charts and have to write the sums (totals) at the right hand side of each line on the space left for the purpose." After this instruction a demonstration was given and individual difficulties, if any, were removed.

3. Now you will listen the pistol-shots. On the first shot you would start working i.e., adding the figures and writing the sums at the right hand end of each line, and would go on working till you listen the other shot of the pistol. Remember, you will stop working and put your pens down at the second shot of the pistol." Following the third instruction a dummy pistol-shot was made on hearing which the *Ss* started their work. After ten minutes another pistol-shot was made on which the *Ss* put their pens down.

4. "Now please write the exact time in minutes and seconds you feel you have taken in the addition work i.e., in between two pistol-shots." On the last and the fourth instruction the *Ss* wrote their responses———the estimated time———in the column provided on the addition-charts. After this, the concerned papers were collected from the *Ss*. The *Ss* were also thanked and asked to leave the theatre.

RESULTS

Since the data collected were not normally distributed the Extension of Median Test of Nonparametric Statistics (Seigal, 1956) was used to examine the results. The median time estimated by the different groups of the *Ss* and their comparative details are being in the table given on page 32.

The results summarised in the table clearly show that four out of seven personal factors of the *Ss* affect the time estimation whereas other three do not. The four personal factors which show statistically significant differential effect on the estimation of ten minutes are: (i) Religion (χ^2=5·854; df=1; P=·02), (ii) Inhabitation (χ^2=4·102; df=1 P=·05), (iii) Income (χ^2=5·712; df=1; P=·02), (iv) Educational achievement (χ^2=7·032; df=2; P=·02). The other three personal factors which do not show statistically significant differential effects are: (i) Occupation (χ^2=3·202; df=2; P=·20), (ii) Birth order (χ^2=2·938; df=2; P=·20), Sex (χ^2=2·246; df=1; P=·20).

Discussion and Conclusion

Since a large number of psycho-social and socio-cultural studies have shown that the personal factors of the individuals are the by-products of the socio-cultural and psycho-social phenomena which also shape and determine the personality patterns of the individuals, it was presumed in the hypotheses of the present study that the *Ss* belonging to the different personal factors would also differ with regards to their time-estimations.

In the area of religion Hindu *Ss* have estimated the time almost accurately (Median=608.14; Seconds) whereas Muslim *Ss* have over-estimated (Median=663·25 seconds). The difference between the time-estimations of Hindu and Muslim *Ss* is statistically significant

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(χ^2=5·854; df=1; P=·02). Now the question arises as to why Muslim *Ss* have over-estimated the time ? The probable answer to this question is that the Muslim *Ss* comparatively suffer from more anxieties than the Hindu *Ss* (Ansari 1973), and that those who manifest more anxieties over-estimate the time (Dubey and Sharma, 1976). The cause of higher anxieties among Indian Muslims seems to be valid because of their being a minority in India. Minority status must have given birth to the feeling of insecurity and inferiority in them and must have led them to the emotional blockage and other repressions. All these factors, in general, are potent sensitizers to put the individuals on the cushions of anxiety (Horney 1937, Fromm 1941, May 1950, Sinha 1962).

TABLE 1

Table showing the median time estimated by the different groups of the *Ss* and their comparative details.

Personal Factors	*Sub factors*	*Median time in second*	*N*	χ^2	*df*	*P*
Religion	Hinduism	608·14	55	5·854	1	·02
	Islam	663·25	15			
Occupation (@)	Service	619·50	17	3·202	2	·20 (*)
	Business	528·59	18			
	Farming/Fishing	473·35	35			
Inhabitation	Rural	501·32	54	4·102	1	·05
	Urban	719·50	16			
Income (@)	(—) Rs. 12,000/- p. a.	590·93	14	5·712	1	·02
	(+) Rs. 12,000/- p. a.	557·00	56			
Birth order	1st born	548·07	15	2·938	2	·20 (*)
	2nd born	561·60	41			
	Last born	719 50	14			
Educational Achievement (H. S. C.)	1st Divisioners	494·50	14	7·032	2	·02
	2nd Divisioners	551·64	27			
	3rd Divisioners	607·00	29			
Sex	Male	590·93	34	2·246	1	·20 (*)
	Female	548·07	36			

(*) Not significant.

(@) Since all the *Ss* were the students of the college the occupation and the income of their parents have been taken into account.

The area of occupation shows that the *Ss* belonging to service class over-estimate the time (Median=619·50 seconds) whereas the *Ss* belonging to the Farming/Fishing group under-estimate more (Median=473·35 seconds) than those who belong to Business group (Median=528·59 seconds). The difference between the time-estimations of Service class *Ss*, Business class *Ss* and Farming/Fishing class *Ss* are not significant (χ^2=3·302; df=2; P=·20). These results do not agree with the findings of Gulliksen (1927).

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RESULTS AND DISCUSSION

The area of inhabitation shows that the urban *Ss* over-estimate the time (Median= 719·50 seconds) whereas the rural *S*s under-estimate (Median=501·42 seconds). The difference between the time-estimation of rural and urban *Ss* is statistically significant (χ^2=5·712; df=1; *P*=·02). These results do not agree with those of Mead and Singh (1967) who reported no difference between the time-estimations of rural and urban *Ss*. However, a justification which appears sound enough and appropriate too, can be presented here in support of the present results. It is widely known and experimentally proved too that urban *Ss* comparatively suffer from more anxieties than those of rural *Ss*, and persons manifesting more anxieties over-estimate the time (Ansari 1973, Dubey and Sharma, 1976). This is, perhaps, because that the urban *Ss* generally face fast running currents of the changing social, cultural and industrial civilization and in order to adjust and cope with them they have to develop more ambitions and aspirations irrespective of their limitations. Hence, they try to struggle hard to achieve what is far away from their reach. This is how they constantly undergo the mental tensions which put them on the higher degrees of anxieties (Sinha, 1962). On the other hand the rural *Ss*, generally, have enough satisfaction with whatever they earn and spend and as such they do not exhibit even those ambitions and aspirations which may put them on mental tensions and anxieties. This is how they have lesser anxieties and under-estimate the time.

In the area of income the *Ss* of low income group have estimate more (Median 590 93 seconds). The difference between the time-estimations of low income group and high income group is statistically significant (χ^2=5·712; df=1; P=·02). It can also be noted here that the *Ss* of both the income groups have under-estimated the time, though the time estimated by the high income group is much more nearer to the standard time (600 seconds). This is perhaps because of the fact that persons differing on their socio-economic-satatus are also found to differ with regards to their personality patterns (Shanmugam 1957, Dubey, 1964, Tiwari and Sultan 1967, Nijhawan and Gupta 1966 and Varma 1966). Possibly, these personality differences caused by different socio-ecomic-status must have led the *Ss* of different income groups to estimate the time differently. The persons of high income group with a special reference to Daman———a semi urban town———do not have to worry to make both ends meet whereas those who belong to the low income group fail to meet their needs and necessities despite of their great labour they can put. With the, they work hard for unlimited periods of times also to meet even their bare necessities. Under such conditions when they have developed strong habites (conditioned) for hard work that too for a longer periods and even for small earnings how can they over-estimate a short-filled time-interval of ten minutes.

The area of birth order shows that last bron *Ss* over-estimate the time (Median=719·50) whereas first born and middle born *Ss* under-estimate (Median=548·07 and 561·60 seconds respectively). The difference between the time estimations of first born, middle born and the last born groups of the *Ss* is not significant (χ^2=2·938; *df*=2; *P*=·20). However, these insignificant differences can not be altogether neglected. The superiority of last born group in time-estimation over the first born group (719·50-548·07=171·43 seconds) and middle born group (719·50—561·60=157·90 seconds) is so high that it warrants an agreement witht he findings of

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Mukherjee and Kundu (1961), Mehta and Juneja (1969), Mukherjee (1968) and George and Abraham (1967) who disclosed clear relationships between birth order and a number of personality variables.

The area of educational achievement shows that the the *Ss* belonging to high achievement (1st Divisioners) and moderate achievement (2nd divisioners) groups under-estimate the time (Median=449·50 seconds and 551·64 seconds respectlvely) whereas those who belong to the low achievement group over-estimate (Median=607·00 seconds). The difference between the time-estimations of high achievers, moderat achievers and low achivevrs is statistically significant (χ^2=7·032; df=2; *P*=·02). This shows that educational achievement is an important factor which influences the judgement of time. These reults can be interpreted in two ways: firstly low academic achievement is found to be related with high anxiety (Sinha, 1966, Sharma 1970) and high anxiety leads to over-estimation of time (Dubey and Sharma, 1976, Sivandam & Reddy, 1965); secondly, high achievement scores are found to be highly correlated with persistence (Gupta & Kapoor, 1969) and the persistant persons are generally found to under-estimate the time.

So far the area fo sex is concerned it is evident from the results as showh in table No. 1 that there is no significant difference between the time-estimation of male and female *Ss* (χ^2= 2·246; *df*=1; *P*=·02) though the male *Ss* have shown a little superiority (Median=590·93 second) over the famale *Ss* (Median=548·07 seconds). It can also be noted here that both the groups——male as well as female *Ss*——have under-estimated the time though the time estimated by the male *Ss* is much nearer to the standard time. It has already been discussed else where anxiety level plays an important role in affecting the time estimation. The findings of Devi (1969) that male and female *Ss* do not differ from each other with regards to their anxiety levels further support the results and findings of the present study.

The entire discussion leads to the conclusion that some of personal factors of the individuals play an important role in affecting their time-estimations. However, further studies, if conducted in this field, may reveal the other possible causes of significant and insignificant differences between the time-estimations of different groups and sub-groups pertaining to the personal factors of the individuals.

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CASTE-PREJUDICE AS A FUNCTION OF RELIGIOSITY

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A sample of 685 college students were tested by using the Indian caste-prejudice scale (I C P S) and Religion scale developed by the authors in Hindi for estimating the extent of caste-prejudice and religiosity. The Indian caste-prejudice scale measures prejudice related to four areas: Political, Social and Economic Gain (P S E G); Marriage and Interpersonal Relation (M I R); Personal Qualities (P Q) and Education, Employment and Inhabitation (E E I). It was found that college students with high degree of religiosity were more caste-prejudiced as compared to the students with lower or moderate degree of religiosity.

Introduction :

Religious experiences are a sensitive index of intergroup relation in the society. A person's style of life, ideats, conduct, standards and perceptibility of the meaning of life, i.e., his basic core of personality is extricably interwoven with the kind and amount of his religious experiences. Customany modes of Conduct represent patterns of behaviour which are supposed to be followed by all persons professing to belong to the society. These patterns prescribe uniform ways of doing things, they serve to unify actions and thus, they function as norms with reference to which persons can be subjected to the bar of the communal judgment (cf. Vaughan, 1948).

Religious superstitions and beliefs regulate human relations within the society. "Diverse forces of some religions seem to penetrate to the complete person" (Clark, 1963). Cultural characteristics are transmitted to individual through the mediums of the family, school, neighbourhood, community and religion. Many personal conflicts, frustrations, anxieties and behaviour peculiarities stem directly or indirectly fron cultural or religious influences.

There is no consistency in the patterns of findings related to the role of religious background in the development of prejudice. It has been reported by several investigators that

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Catholics appear to be most prejudiced and hostile toward the Nagro; Protestants next most prejudiced; and Jews and people with no religious affiliation least prejudiced (Merton, 1940; Allport and Kramer, 1946; Bettelheim and Janowitz, 1950). Mackenzie (1948) and Rosenblith (1949) partially confirm or do not confirm these findings at all. Generally, most of the investigators have reported little or no difference between catholics and Protestants in the extent of prejudice towards Jews. Traindis and Triandis (1960) some years ago observed that ethnic prejudice was highest for Catholics, next for Protestants, and lowest for Jews. Very recently Kilpatrik *et al.* (1970) indicated that Catholics were consistently more dogmatic than members or other religious groups.

The degree of religiosity reflects and affects intergroup relations. Studies related to religiosity and prejudice have produced conflictiog results. Adorno *et al.* (1950) found in their studies that religious people were more prejudiced toward Jews and Negroes. In the findings of Prothro and Jensen (1950) low correlations emerged between favourable attitudes towards the Church and toward the Negroes and Jews. Ross (1950) has indicated on the basis of his study that atheists and agnostics seem to be less prejudiced. Blum and his associates (1960) also reported that students belonging to religious institutions were comparatively more anti-semitics than students who did not belong to such institutions. Strommen (1961) clearly mentioned that most of the orthodox Dutch people express agreement to prejudiced statements. Allport and Ross (1967) also observed that generally Church goers were more prejudiced as compared to non-church-goers. However, we can say that a curvilinear relationship exists between religiosity and prejudice. Relationship of prejudice to religiosity thus varies from one religion to other religion due to variations in their ideologies. In India Hinduism is religiously tolerant but it is integrally associated with a caste-system in most interpretations.

Here the authors proposed to study the difference in the caste-prejudice due to variation in the degree of religiosity among College students.

METHOD

Subjects : Subjects belonged to Intermediate to post-graduate standard of the Magadh University. Altogether 685 College students were tested.

Tests : The following tests were used to measure caste-prejudice and religiosity : (a) *Indian Caste-prejudice Scale (ICPS) :* This scale is developed by the authors (Singh and Prasad, 1974) in Hindi and was used to measure levels of caste-prejudice of rural and urban College students. It consists of 44 items and assesses caste-prejudice related to the following areas : (i) Political, Social and Economic Gain (PSEG), (ii) Marriage and Interpersonal Relation (MIR), (iii) Personal Qualities (PQ) and (iv) Education, Employment and Inhabitation (EEI). This is a Likert type 5-point scale ranging from "Fully agree" through "Undecided" to "Fully disagree". (b) *The religion Scale* : This as a 25-item, Likert-type scale developed by the authors (Singh and Prasad, 1973) in Hindi to measure attitude toward religious faith. The mode of response on this scale is as follows : strongly agree, undecided, disagree and strongly disagree. Response alternatives to all items are weighted from 5(strongly agree) to 1 (strongly disagree). Scoring of negative items is done in reverse order. A person's score is the sum of the weighted alternatives endorsed by him. High scores indicate positive attitudes towards religion as well as high degree of religiosity.

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Procedure : The incidental purposive sampling of technique was used for data-collection. The total sample was analysed for each of the four areas of caste-prejudice and also for the total or aggregate caste-prejudice scores on the basis of assuming an average group to fall within '$M \pm 1PE$' limits which include the middle 50% cases around the mean. Cases falling above and below this range are called "extreme cases". *Ss* with scores falling below the lower the lower limit of the "moderate caste-prejudice" (MCP) are called "low caste-prejudiced" (LCP), while those with scores falling above the higher limit of the "moderate" group are taken to represent the "high caste-prejudiced" (HCP) group. The mean scores of religiosity obtained by these three groups were compared to know the relationship between caste-prejudice and religiosity.

RESULTS AND DISCUSSION

A cursory look at the table indicates that college students at the three levels of caste-prejudice (HCP, MCP and LCP) have displayed variation in the mean-scores of religiosity. All these variations have been interpreted taking into account the each area of caste-prejudice.

TABLE—1

Showing M, SD, *SEm* and Critical ratios (CRs) of religiosity scores obtained by High Caste-Prejudiced (HCP), Moderate Caste-Prejudiced (MCP) and low Caste-Prejudiced (LCP) *Ss* in different areas of prejudice.

Areas		*N*	*M*	*SD*	*SEm*	*Critical ratios*		
						HCP-MCP	*HCP-LCP*	*MCP-LCP*
PSEG	HCP	244	89·60	17·80	1·13			
	MCP	317	87·14	13·36	·75	1·82	4·06**	3·02**
	LCP	124	82·57	14·78	1·32			
MIR	HCP	251	88·83	18·46	1·16			
	MCP	268	87·18	13·20	1·13	1·02	1·60	·58
	LCP	166	86·25	14·55	1·13			
PQ	HCP	252	93·58	15·12	·94			
	MCP	277	80·27	12·67	·77	2·73**	2·04*	7·45**
	LCP	149	90·56	14·05	1·15			
EEI	HCP	242	99·06	16·51	1·06			
	MCP	341	84·05	14·70	0·79	11·37**	5·89**	4·02**
	LCP	102	88·03	15 56	1·54			
Total	HCP	269	89·58	20·46	1·25			
	MCP	283	86·87	19·27	1·15	1·58	2·41*	0·97
	LCP	133	85·14	15·53	1·35			

*P. < .05 **P. < .01

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Political, Social and Economic Gain (*PSEG*) : Students with high scores of religiosity have higher mean scores of caste-prejudice while those who have lower scores of religiosity have low mean scores of caste-prejudice also. The low caste-prejudiced (LCP) college students differ from the moderate caste-prejudiced (MCP) as well as high caste-prejudiced (HCP) students at $<$·01 level of confidence. This reveals that low degree of religiosity seem to be related with low caste-prejudice while high degree with high caste-prejudice.

Marriage and Interpersonal Relation (*MIR*) : As regards this area of caste-prejudice in none of the comparisons significant difference has emerged. But the trend of mean scores of religiosity is the same which has been observed in the case of PSEG area of caste-prejudice.

Personal Qualies (*PQ*) : In this area each caste-prejudiced group differs from the other. The high caste-prejudiced (HCP) *Ss* have shown higher mean scores of religiosity as compared to moderate (MCP) and low caste-prejudiced (LCP) *Ss*. In these comparisons HCP group differs from MCP at $<$·01 and LCP at $<$·05 levels whereas MCP group differs from LCP group at $<$·01 level of confidence. This tendency is the indicativs of the fact that high degree of religiosity generates high degree of caste-prejudice.

Employment, Education and Inhabitation : As regards EEI area of caste-prejudice, all the three groups, i.e., HCP, and MCP differ significantly from each other in their mean scores of religiosity (*P*. $<$·01). The high caste-prejudiced College students show high degree of religiosity as compared to moderate (MCP) and low caste-prejudiced (LCP) ones. These differences lead to the fact that the low caste-prejudiced (LCP) *Ss* are less religious whereas the high caste-prejudiced (HCP) more religious.

Aggregate Caste-Prejudice : College student who are high caste-prejudiced (HCP) have also higher scores on religiosity than those who are moderate (MCP) and low caste-prejudiced (LCP). The difference between HCP-LCP groups is significant beyond ·05 level of confidence.

Thus, the tendency of mean-scores of religiosity in all the areas of caste-prejudice leads to the conclusion that those students who have high degree of religiosity are more caste-prejudiced. In other words we can say that caste-prejudice is a function of religiosity.

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FAMILY DYNAMICS OF SCHOOL DROPOUTS

(BURNING PROBLEM OF INDIAN PRIMARY EDUCATION)

By

Dr. GOVIND TIWARI, M. A., Ph. D.

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NEUROTICISM, EXTRAVERSION AND ACCIDENTS

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The purpose of the present study was to find out whether neuroticism and extraversion variables influence accidents. Seventyfive workers from two groups each were selected as subjects. Critical-ratio was computed to determine the significant difference. The results indicate that workers of accident group are more neurotic and extravert as compared to workers of the non-accident group.

Introduction :

It can not be said that every job is stressful for most of the individuals employed in it yet it is a fact that some of the jobs can be very stressful atleast for some of the persons. This stress creates frustrations. When frustrations are increased, adjustive responses become inadequate, reactions are disorganized and exaggrated. Under such situations the individual becomes prone to be inflexible and unwilling to change his responses. The term neurosis is used to describe a wide range of ineffective defence reactions (Ruch, 1970).

According to Scheier and Cattell (1961) the term neurosis refers to a class of behaviour wherein the person frequently mis-evaluates adjustive demands. He becomes anxious in situations when most people would not develop behaviour patterns aimed at avoiding rather than coping with problems. Such an individual runs a high risk of meeting with an accident. Tiffin and McCormick (1971) consider accidents to be errors. Accidents do not just happen as in the case of other types of errors. Rather, they can be considered as being brought about by certain preceding circumstances and events. Some of which may be associated with human beings, other with situational factors, sometimes called mechanical factors.

Schultz (1973) opines that factors like personality, attitude and general behaviour characteristics play an important role in determining the causes of accidents. Not much attention has been paid to the relationship between personality characteristics and accidents and few psychologists have considered accidents to be a befitting subject of research in India (Mishra, 1975; Singh and Mishra, 1976; Pestonjee, Singh and Ahmad, 1977a, 1977b; Chatterjee and Mukherjee, 1968; Bose and Dasgupta, 1969).

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MEDHODOLOGY

The present study was conducted at the Diesel Locomotive Works, Varanasi (U.P.), India. Seventy five workers were selected to constitute the accident group. This category includes those workers who were involved in accidents during the past 12 months. There was a matched control group of seventyfive workers also. Thus, 150 workers were included in the present investigation. The sample was drawn from different section of the plant. These are Light Machine Shop, Heavy Machine Shop, Tool Room, Welding Shop, and Loco Assembly.

For purposes of measuring the neuroticism dimension, the *Maudsley Presonality Inventory* (MPI) has been used. This inventory was constructed and developed by Eysenck (1959), later on Jalota and Kapoor (1965) adopted the MPI in Hindi.

The 48 items of the inventory are distributed among the two personality dimensions. Each item has three response alternatives, scored 0, 1, and 2 from lower to higher levels of neuroticism and extraversion, and any single item contributes to only one of the two dimensions of the personality.

The two groups of workers were matched on organismic and situational variables. These variables are known to influence the accidents, so it was necessary to control them. The nature of the jod and educational qualifications were almost similar in both the groups. They were also matched for such characteristics as age, number of dependents, work experience, and income. The respective average ages of the accident group and nonaccident group were 30-65 years and 29-95 years. The average number of dependents in the two groups was 5·00. The average work experience in the accident group was 9·14 years and in the nonaccident group it was 9·09 years. The average monthly income in the accident group was Rs. 439·81 and Rs. 437·67 in case of the nonaccident group.

RESULTS

Results of the present investigation are recorded in the following tables (Table 1 to 3).

Table-1 records the mean, and S.D. of neuroticism scores (overall and categorywise) of workers under the accident and nonaccident groups. These scores were classified as 'high', 'moderate', and 'low' with the help of percentile norms. This classification was made with a view to obtain a clearer picture of the relationship between neuroticlsm andaccidents.

TABLE—1

Neuroticism scores of workers in accident and nonaccident groups.

	Accident Group			*Nonaccident Group*		
	N	*Mean*	*S. D.*	*N*	*Mean*	*S. D.*
Overall	75	58·20	2·20	75	56·67	4·15
High	15	65·33	2·46	17	63·12	2·84
Moderate	40	58·65	2·23	41	55·98	1·65
Low	20	51·79	3·09	17	51·65	1·84

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Table-2 records the mean, and S. D. of extraversion scores (overall and categorywise) of workers under the accident and nonaccident groups.

TABLE—2

Extraversion scores of workers in accident and nonaccidant groups.

	Accident Group			*Nonaccident Group*		
	N	*Mean*	*S, D.*	*N*	*Mean*	*S. D.*
Overall	75	52·65	8·53	75	55·15	8·52
High	16	62·50	1·74	18	66·00	2·65
Moderate	42	53 98	3·82	39	54·86	3.64
Low	17	39·41	3·42	18	43·06	2·48

In table—3 the critical ratio values for comparison of overall and different levels of neuroticism and extraversion scores are recorded between the tow groups.

TABLE—3

Siginificance of difference in mean neuroticism and extraversion scores (overall and categorywise) between the groups.

	Neuroticism		*Extraversion*	
	t	*p*	*t*	*p*
Overall	2·10	·05	1·81	NS
High	2·38	·05	4·61	·01
Moderate	6·07	·01	1·06	NS
Low	0·17	NS	2·62	·05

DISCUSSION

The purpose of the present investigation is to determine whether blue-collar workers with and without accident records differ significantly in some of the personality characteristics. These characteristics are neuroticism and extraversion. It is observed that these characteristics differentiate them.

From the results contained in Table-1 we gather that the overall neutroticism scores of employees in the accident group are higher as compared to nonaccident group. The mean neuroticism score in the accident group is 58·20 whereas in the nonaccident group it is 56·67. The S. D. value is 2·20 for the accident group and 4·15 for the nonaccident group indicating greater heterogeniety in the later case. The *t*-ratio indicates a statistically significant difference

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($p<.05$) between the two groups (Table—3). It is clear from these results that there is a greater tendency toward neuroticism in case of the accident group as compared to the nonaccident group of workers. It supports the idea that people who meet with accidents possess unique personality characteristics which differentiate them from their fellowmen who do not have accidents.

Besides the overall neuroticism scores, we have also classified them into three categories with the help of percentile norms. The are 'high', 'moderate' and 'low'. The mean and the S. D. scores for the high neuroticism category in the accident group are 65·33 and 2·46 while the corresponding scores for the nonaccident group are 63·12 and 2·84 respectively. If we compare these scores for the two groups it is clear that scores in the accident group are significantly higher in comparison to nonaccident group scores. The mean and S. D. for the moderate neuroticism category in the accident group are 58·65 and 2·23. The respective figures for nonaccident group are 55·98 and 1·65. The scores for the low neuroticism category in the two groups approximate each other. The *t*-ratio indicates a statistically significant difference ($p<.01$) between the moderate neuroticism category in the two groups while a non-significant difference was obtained in case of low neuroticism category in the two groups (Table—3).

From table-2 we observe that overall extraversion scores of workers in the nonaccident group are higher in comparison to the accident group. The mean extraversion score in the nonaccident group is 55·15 whereas in the accident group it is 52·65. The S. D. value is 8·52 for the nonaccident group and 8·53 for the accident group. The *t*-ratio indicates a non-significant difference between the two groups (table-3). We find a reverse trend in extraversion scores as compared to neuroticism scores, here extraversion scores are comparatively higher in the nonaccident group which is in the expected direction. The results obtained in the present investigation are in contradictory to the results of Balkan and others (1963). They have reported that introverts are more alert and attentive in situations calling for a sustained vigilance. According to these investigators "introverts are less likely to have accidents than extraverts".

To get a clear picture of the extraversion scores we have classified them also into three categories with the help of percentile norms. These categories are 'high', 'moderate', and 'low'. The mean and S. D. scores for the high extraversion category in the accident group are 62·50 and 1.74. The respective figures for the nonaccident group are 66·00 ann 2.65. We find here that nonaccident group of workers are more extraverts in comparison to accident group workers. The *t*-ratio indicates a significant difference between the two groups (table-3). The mean and S. D. for the moderate extraversion category in the accident group are 53·98 and 3·82 phereas these are 54·86 and 3·64 for the nonaccident group. Though the moderate extraversion category scores for the nonaccident group are higher as compares to the accident group but it is not statistically significant (table-3). Further the mean and S. D. for the low extraversion category in the accident group are 39·41 and 3·42 while the corresponding scores for the nonaccident group are 43·06 and 2·48 respectively. When we compare these scores for the two groups we find that scores in the nonaccident group are significantly higher as compared to accident group (tabel-3).

From the above discussed results it becomes clear that accident group workers are more neurotic as well as less extravert in comparison to those workers who are categorised as nonaccident group.

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CONCLUSION

Neuroticism was found to be related with the accidents. Neuroticism level is higher in accident group, on the other hand nonaccident group of workers tend to be less neurotic. In neurotic behaviour the person frequently misevaluates adjuctive demands of the sitution.

The superior perfomance of the extraverts ia the industrial atmosphere is attributed to the fact that they are more alert and attentive in a situation which requires a sustained vigilance.

Since it is known that neroticism and extraversion are related with accident behaviour, it is safe to presume that an intensive study of personality can be helpful in identifying the 'bad risk'.

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A STUDY OF SELF-CONCEPT, ACADEMIC MOTIVATION AND ANXIETY AMONG HIGH AND LOW ACADEMIC ACHIEVERS

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&

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Introduction :

Study of academic achievement has become a topic of key interest for educationists as well as psychologists. After independence the greater emphasis was laid on education. Consequently, the number of students both at school and college levels increased. But the quality of students and the standard of teaching have been showing a downward trend. Each year a good number of students in every educational institutions fail at different examinations and this poses a serious problem before the educational planners of our country. Studies conducted in this direction have shown that both intellectual and non-intellectual factors have significant relationship with academic achievement of students. High scholastic achievement not only requires intelligence and ability rather it also needs favourable and contributory personality factors.

Some of studies conducted on self-concept as a factor of academic achievement are those of Lewis (1941), Wilson and Morrow (1962), Nason (1958), Payne and Farquhar (1962), Stone (1962) and Srivastava (1966). Lewis (1941) and Wilson and Marrow (1962) found that the high achievers were more confident about their ability than the low achievers. Nason (1958) reported that self-concept of superior students were closely related to their achievement. Payne and Farquehar (1962), Stone (1962), Srivastava (1966) and several others observed positive correlation between self-concept and academic achievement. Contrarily, Holland and Nicholas (1964) found self-concept as an ineffective predictor of scholastic achievement. Singh (1965) and Srivastava (1966) found underachievement to be significantly related to academic motivation. Similarly, achievement motivation had been found to be a significant factor in the academic performance of students by several investigators (Gough, 1953; Krug, 1959; Singh, 1965; Sinha, 1968, 1970).

The state of affairs with regard to anxiety as a factor in academic achievement is rather conflicting. Bending (1958a), Furneaux (1957), Lynn (1957), Sarason (1957), Sarason and Mandler (1952) and several others reported anxiety to facilitate academic performance of students whereas Atkinson and Litwin (1960), Cox (1964), Sarason (1961, 1963), Smith (1964), Singh (1965), Singh (1966), Sinha (1966) and Sinha (1968, 1972) found it as a factor of interference in intellectual performance of students. It is obvious that there is no unanimity among investigators. The present study was undertaken with a view to examining the exact relation-

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ship between academic achievement on the one hand and self-concept, academic motivation and anxiety on the other. More specifically, the purpose of the present study was to test the following hypotheses :

(i) There would be a significant difference in self-concept of the high and the low-academic achievers.

(ii) There would be a significant difference in academic motivations of the high- and the low-academic achievers.

(iii) The high- and the low-academic achievers would differ significantly in terms of their anxiety.

(iv) There would be significant positive correlation between self-concept and the academic achievement of students.

(v) There would be a significant positive correlation between academic motivation and academic achievement of students.

(vi) Anxiety scores would bear negative and significant correlation with academic achievement of students.

METHOD

Sample : The sample comprised 150 female students of XIth grade, drawn from two local high schools. The age of the subjects ranged from 14 to 18 years.

Tests Used :

(i) Self-concept and (ii) Academic Motivation :

In order to assess the levels of self-concept and academic motivation in the subjects, inventory initially prepared by Brookover, Paterson and Thomas (1962) in their study of relationship between self-concept of academic ability and school achievement was used. The inventory consisted of 16 multiple-choice items, first eight of which measured self-concept of ability and the last eight items, academic motivation. It was adapted in Hindi by Singh (1965) for undergaduate students and test-retest reliabilities for self-concept of academic ability and academic ability and academic motivation were found to be ·85 and ·88 respectively. It was this Hindi version of the scale that was used in the present study.

In order to assess the level of anxiety in subjects Sinha and Krishna's (1971) Revised Comprehensive Test of Anxiety (CTA), originally developed by Sinha and Sinha (1969) was used. The test consisted of 75 items with forced choice response alternatives of 'Yes' and 'No'. A score of one was assigned to responses indicative of anxiety. Then the possible rang of scores was from 0 to 75. The higher the score of a subject on the test, the greater the level of his anxiety. The test-retest and internal consistency reliabilities of the test were ·87 and ·95 respectively.

The measures of academic achievement consisted of an average of aggregate marks obtained at the two consecutive final examinations. It was proposed to employ only two extreme groups of subjects, namely, the high and the low-achievers in examination. The

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criterion for high achievement was at least 60 per cent marks and above, and that of low achievement, failure at the examination.

Procedure :

Tests were administered in small groups of 10 to 15 subjects in a classroom situation. The collection of data extended over a period of two sessions. In the first session AI and in the second session CTA was administered. A gap of at least half an hour was allowed in between the two sessions. Subjects were provided with printed instructions or the tests booklet. Examinations marks were obtained from the office records in order to make it more reliable. Finally on the basis of achievement criterion 30 High Achievers (HA) and 30 Low Achievers (LA) were selected.

RESULTS AND DISCUSSION

Table—1 presents comparison of HA and LA groups in terms of their mean scores on self-concept, academic motivation and anxiety.

TABLE—1

Comparison of High (HA) and Low (LA) Achievers in terms of their mean scores on self-concept, academic motivation and anxiety (N=30 in each group)

Variables	*Groups*	*Mean*	*SD*	*t* ($df=29$)*	*P-value*
Self-Concept	HA	33·03	3·32	4·37	·01
	LA	28·67	4·35		
Academic Motivation	HA	29·53	5·43	2·23	·05
	LA	26·90	3·53		
Anxiety	HA	16·73	8·74	·34	n.s.
	LA	15·90	10·05		

*The *df* was reduced to half (Edwards, 1962).

It is evident from Table—1 that the HA group scored significantly higher on self-concept ($t=4·37$, $df=29$, pless then ·01) and academic motivation ($t=2·23$, $df=29$, pless than ·05) than the LA group. Although the HA group scored slightly higher on anxiety ($t=·34$, $df=29$, p greater than ·05) than the LA group, the mean difference was statistically insignificant. Thus the first and the second hypotheses were supported from the persent findings, but the third hypothesis did not hold good.

Results which uphold the persent findings are those of Lewis (1941) and Wilson and Morrow (1962) who found that the high-achievers are confident about their ability than the

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low-achievers. Our findings in respect of academic motivation gain indirect support from the findings conducted on need achievement by Muthayya (1964), McClelland *et al.* (1953), Singh (1965) and Sinha (1970) who reported significantly greater mean score, of the high achievers than those of the low-achievers. Although the findings in respect of anxiety is not in the hypothesized direction, however, they gain support from Reiter (1964) who failed to find anxiety as a valid predictor of academic achievement for both male and female college freshmen samples. Contrary to our findings a good number of investigators (Singh, 1965; Sinha, 1966; Sinha, 1968) found that the low-achievers tended to be significantly more anxious than the high ones.

In order to examine the relationship, if any, between academic achievement on the one hand and scores on self-concept, academic motivation and anxiety on the other, product moment coefficients of correlation were computed (Table-2).

TABLE 2

Coefficient Correlation of Academic Achievement with Self-Concept, Academic Motivation and Anxiety.

Variables	*Academic Achievement* *r-value (df=148)*	*p-value*
Self-Concept	.348	·01
Academic Motivation	·286	·01
Anxiety	—·067	n.s.

Table 2 reveals that academic achievement was significantly and positively related to self-concept (r=·348, df=148, p less than ·01) and academic motivation (r=·286, df=148, p less than ·01). Academic achievement was found to be independent of anxiety (r=—·067). Thus, the fourth and the fifth hypotheses were supported from the present findings, but the sixth hypothesis did not gain support.

Results consistent with the present study are those of Brim (1964), Payne and Farquhar (1962), Stone (1962), Srivastva (1968) and several others who observed significantly positive correlation between self-concept and academic achievement. The findings in respect of academic motivation, however, gain indirect support from the findings reported in the context of need achievement by Singh (1965), Sinha (1970) and several others who found significant and positive association between *n*-ach. and academic achievement. Conflicting results have been observed in several empirical studies made so far with regard to anxiety and academic achievement. Contrary to common findings, in our case anxiety was found to be independent of academic achievement. The difference in finding may be due to nature of sample and tool used to measure anxiety. In most of the studies either MAS or Test Anxiety Questionnaire was used as a measure of anxiety whereas in the present context an anxiety test, measuring free-floating general anxiety was used.

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SUMMARY & CONCLUSION

Thirty high and 30 low academic achievers, selected from a pool of 150 female students of XIth grade were compared in terms of their mean scores on self-concept, academic motivation and anxiety. The findings reveal that the high achievers scored significantly higher on self-concept and academic motivation than those of the low achievers. Both groups of females did not differ statistically in terms of their anxiety scores. Further it was found that the academic achievement tended to exhibit significant and positive association with self-concept and academic motivation. Academic achievement was found to be independent of anxiety. The findings were in the hypothesized direction except in case of anxiety.

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RESEARCH REPORT

EVALUATION OF MALE AND FEMALE ROLES

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Since ages woman has been economically dependent. She has been oppressed and ill-treated according to man's whims and fancies. Till recent years she played limited roles. To voice against this exploitation and man's longlived domination, woman's liberation movement was started in some of the U. S. A. a result of this movement the subject of woman's roles and her status has been much discussed at national and international forums. It has been realized that understanding of women will lead to clearer understanding of men and people in general. Further nations can prosper only if women's importance is realized and her status is raised. For this 1975 was devoted for the understanding of woman.

With the changing economic condition, equality of wages, greater job opportunities, greater prestige attached to worker's role, need for higher living standard and families, more and more women will be expected to enter labour force. Woman's roles will be diversified and she will enjoy greater freedom. There is likely to be in women less marriage-career conflict (Helson 1972). To evaluate the relative status of woman's roles *vis-a-vis* with those of man's, this study was undertaken. It was hypothesized that under the impact of much propaganda about the importance of woman during the international woman's year, woman will be rated at par with man if not superior. It was further hypothesized that the status of working-woman will be exalted more than that of mother or wife.

Procedure :

To define status, ten adjectives related to competency and humaneness were selected. Each of these adjectives with their antonyms were arranged bi-polarly on 7-point rating scales. The following role-concepts were evaluated on these ten rating scales : mother, daughter, wife, working-woman, future-woman, father, son and husband.

Sample : 120 men and 120 women mostly graduates between 25 to 50 years of age belonging to Hindu, Muslim and Christian communities were asked to rate the 8 concepts using the 10 scales for each concept.

Result :

A. Comparison of male roles :

Father and husband are almost equally confident, progressive, efficient and independent. Husband is more far-sighted but father is more righteous, unselfish and faithful. The highest status is given to father (5·7) followed by husband (5·5) and then son (5·2).

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Table: Average values on 10 evaluative 7—point rating scales given by Men (n=120) and Women (n=120) to certain male and female role-concepts.

Concepts.	*Father*			*Mother*			*Son*			*Daughter*		
Scales *Sexes*	*M*	*F*	*Av.*	*M*	*F*	*Av.*	*M*	*F*	*Av.*	*M*	*F*	*Av.*
Confident—hesitant	5·9	6·3	6·1	5·1	5·4	5·3	6·0	6·1	6·1	4·9	4 8	4·9
Progressive—regressive	6·0	6·1	6·1	5·1	5·4	5·3	6·0	5·9	6·0	5·8	5·6	5·7
Efficient—inefficient	5·5	5·7	5·6	5·6	5·6	5·6	5·5	5·3	5·4	5·2	5·2	5·2
Independent—dependent	6·1	6·2	6·1	3·0	3·6	3·3	5·0	5·0	5·0	3·5	3·6	3·6
Far-sighted—short-sighted	5·3	5·1	5·2	4·3	4·6	4·5	4·7	4·9	4·8	4·6	4 7	4·7
Righteous—jealous	5·3	5·4	5·4	5·3	5·3	5·3	4·7	4·7	4·7	4·5	4·6	4·6
Virtuous—sinful	5·3	4·7	5·0	6·0	5·5	5·8	4·8	5·1	5·0	5·5	5·7	5·6
Unselfish—selfish	5·2	5·5	5·4	5·8	5·7	5·8	4·4	4·7	4·6	4·9	5·2	5·1
Sincere—insincere	5·9	5·7	5·8	6·3	6·1	6·2	5·3	5·5	5·4	5·7	6·1	5·9
Faithful—Unfaithful	6·1	5·9	6·0	6·5	6·4	6·5	5·4	4·7	5·1	5·4	6·1	5·8
Average.	5·7	5·7	5·7	5·3	5·4	5·4	5·2	5·2	5·2	5·0	5·2	5·1

Concepts	*Husband*			*Wife*			*Working-Woman*			*Future-Woman*		
Confident—hesitant	6·2	6·3	6·3	5·0	5·2	5·1	6·4	6·2	6·3	6·2	6·6	6·4
Progressive—regressive	6·2	6·1	6·2	4·9	5·4	5·2	5·9	6·2	6·1	6·2	6·4	6·3
Efficient—inefficient	5·9	5·7	5·8	5·2	5·5	5·4	5·7	5·8	5·8	5·8	5·9	5·9
Independent—dependent	6·2	5·6	5·9	2·8	3·8	3·3	5·8	5·7	5·8	5·9	5·9	5·9
Far-sighted—short-sighted	5·9	5·3	5·6	4·0	5·0	4·5	5·2	5·2	5·2	5·5	5·6	5·6
Righteous—jealous	4·6	4·6	4·6	4·0	4·0	4·0	4·3	4·7	4·5	4·2	4·7	4·5
Virtuous—sinful	4·5	5·1	4·8	5·6	5·4	5·5	4·8	5·2	5·0	4·5	4·9	4·7
Unselfish—selfish	4·4	4·7	4·6	4·7	5·4	5·1	4·2	4·7	4·5	3·7	4·2	4 0
Sincere—insincere	5·6	5·5	5·6	5·8	6·1	5·5	5·2	5·6	5·4	4·8	5·5	5·2
Faithful—Unfaithful	5·6	5·5	5·6	6·0	6·3	6·2	5·1	5·7	5·4	4·9	5·3	5·1
Average.	5·5	5·4	5·5	4·8	5·2	5·0	5·3	5·5	5·4	5·2	5·5	5·4

M=Men, *F*=Women, *Av*=Average.

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B. Comparison of female roles :

Mother is more competent and human than wife. Mother, daughter and wife are dependent but wife is very dependent according to the men's ratings (2·8). Further, wife is most jealous according to both sexes. Though men do not rate wife as having any outstanding favourable characteristics which mother or daughter does not have, however, the women rate wife as being more far-sighted than mother and daughter. Mother gets the highest rating (5·4) followed by daughter (5·1) and than wife (5·0), The male subjects see greater difference between mother and wife (5·3—4·8=0·5) than female subjects (5·4—5·2=0·2).

C. Comparison of male roles :

1. Father *Vs* mother

Both the sexes rate father more favourably than mother (5·7 and 5·4, respectively). Though both are equally efficient, but father is strikingly more confident, progressive and independent than mother who is however more faithful, sincere, virtuous and unselfish.

2. Husband *Vs* wife

Husband is more competent than wife who is more humane. Interestingly, the male subjects rate wife comparatively less favourably (4·8) than the female subject do (5·2). The male subjects perceive wife as being short-sighted and very dependent. Here again the male subjects see greater difference between husband and wife (5·5—4·8=0·7) than the female subjects (5·4—5·2 =0·2).

3. Son *Vs* daughter

Though son is viewed as more competent and daughter as humane, overall difference between son and daughter is negligible (5·2—5·1=0·1).

D. Comparision of working woman and future woman :

The most striking characteristics attributed to working-woman are those of independence and far-sightedeness. Working-woman is perceived as highly confident, progressive and efficient but relatively less virtuous, liberal and faithful. Future woman is described in the seme manner as working-woman with no difference between them (5·4—5·4=0).

Discussion :

In the past man has unquestionally enjoyed higher status than woman. Even now he is elevated but to a lesser extent as shown by the present study. Some degree of self-aggrandisement among men is seen in the higher rating of male roles by the male subjects of this study.

Roles which give economic independence tend to be more favourably evaluated. This accounts for the higher status given to working-woman. Futurer woman most likely will be a working-woman since she has been described in the same manner as working-woman. However. certain prejudices are held against working-woman. It is believed that she is comparatively less trustworthy and benevolent. As a worker, woman's interests get diversified, obligation multiply and her loyalty gets divided. As the expectations based on traditional and customary attitudes do not easily change, working woman may encounter many conflicting situations.

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Different roles do induce changes in the character and personality of individuals. As a worker, woman's character is likely to become similar to that of her male counterpart. The stereotyped male and female roles will gradually disappear as it has happened in the western societies where one finds uni sex fashion and behaviour. The implication is that from by early age men and women must be taught to mutually respect each other and to accept equality if future families are to be made stable.

Conclusion :

1. Males have some what higher status than females.
2. Roles induce changes in the personality structure.
3. Status rises with economic independence.
4. Working woman is as competent as man.
5. Future woman will be a career woman also with higher status.
6. Prejudices against working woman should be investigated and removed.

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A HALF YEARLY RESEARCH JOURNAL

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The Indian Psychological Society

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Venue : Baikunthi Devi College, Baluganj, Agra.

GENERAL ANOUNCEMENT

Dear Sir,

I take pleasure in informing you that the All India Conference in Psychology and Education, which is being organised under the joint auspices of the Psychology Deptt. of Agra College, Agra and Psychology and Education Deptt. of Baikunthi Devi College Agra, will be held on 29th and 30th January, 1977.

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(i) Rural Psychology, (ii) Indian Psychology

B. Creativity

(a) The Status of Creativity as a concept with future implications.
(b) Indian Researches in Creativity.
(c) Psychological and Educational Importance of Creativity.
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C. Role of Teacher-Training College in the 10+2+3 Pattern of Education. (Any Related Issue)

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D. Recent Trends in Educational and Psychological Research. (Any Related Issue)

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The inaugural programme will be held on January 29, 1977 at 9 A. M. sharp in Baikunthi Devi College, Agra. The College is situated in Baluganj, very close to the Fort Roadways Bus Stand and the P. W. D. Office, at the inter section of Aulia Road and Gwalior Road.

3. Railway Concession

You will be glad to learn that the Railway Ministry has kindly consented to give Railway Concessions to delegates who will travel 400 Kilometers or more from the place of the Conference. I am herewith enclosing a copy of the Railway Concession form for your kind use. Kindly let us know by return of post your final programme, viz. date and time of arrival. (This information may please be sent to Dr. (Miss) S P. Sinha, Head, Psychology Deptt. Baikunthi Devi College, Agra). It will be more convenient if you get down at Rajamandi Station. However we are setting up Information booths at all the Railway Stations in Agra, where necessary help and guidance will be given to you.

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7. Exhibition

On this occasion we will organize an Exhibition of Books, Psychological Apparatus and Tests.

8. Souvenir

A souvenir will be released at the time of the conference.

Once agin I welcome you most warmly to grace the Conference with your kind presence. We await your arrival in our midst.

Thanking you.

Yours faithfully

S. D. Dr. M. C. JOSHI
(Hony Gen. Secy.)

Jan. 2, 1977

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Indian Psychological Review
1976, Vol. 13, No. 2, p. 1—3

JOB HAZARD, JOB RANK AND RELIGIOSITY

Awadhesh K. Sinha & Suresh P. Shahi
Bihar University, Bihar

The study aimed to test the hypotheses that (i) persons belonging to hazardous jobs would be significantly higher in religiosity than those in non-hazardous jobs, (ii) those in high job rank would be significantly lower in religiosity than those in low job rank and (iii) hazard and rank would interact significantly. Bhushan's Religiosity Scale was administered to (i) Police constables, (ii) Assistant Sub-Inspectors of Police, (iii) Office peons and (iv) Office assistants ($N=50$ each). The first two groups constituted the hazardous, the remaining two the non-hazardous, groups (i) and (iii) the low job rank, and (ii) and (iv) the high job rank groups. Following a two-way analysis of variance, the first hypothesis was verified while the remaining two failed to be verified.

INTRODUCTION

The purpose of the investigation was to find out whether job-hazard and job-rank are critical determiners of religiosity. It is a common notion existing in the Indian culture that persons belonging to hazardous occupations, i.e., such occupations in which the normal discharge of duty involves some risk on life, are more God-fearing, have a deeper religious orientation and are more prone to the observance of religious practices than those placed in non-hazardous jobs. Boisen (1955) has also presented indications that religious beliefs and practices tend to be heightened under conditions that give rise to experiences of personal and social crisis. To the extent constant exposure to hazard as a part of occupational necessity may be treated as conducive to the creation of an enduring feeling of personal crisis, it may be reasonably expected that persons belonging to a job of hazardous category should have a deeper religious orientation than those belonging to non-hazardous jobs. There also exists a similar notion that the higher a man is in his socio-economic status the more unfavourable is his attitude towards religion and the more averse he is to the observance of religious practices. If this is so, it is to be expected that, job-hazard being the same, persons belonging to a high job-rank would be lower in religiosity than persons belonging to a low job-rank. The investigation reported here was addressed to a varification of these contentions.

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The study, thus, proceeded to test specifically the following hypotheses;

(i) Persons belonging to hazardous jobs will be significantly higher in religiosity than persons belonging to non-hazardous jobs.

(ii) Persons belonging to high job-rank will be significantly lower in religiosity than persons belonging to low job-rank.

(iii) Significant interaction will be found between job-hazard and job-rank.

METHOD

The study was conducted on 200 *Ss* divided into four groups of 50 *Ss* each, namely, (i) Police constables, (ii) Assistant Sub-Inspectors of Police, (iii) Office peons of Collectorate and (iv) Office Assistants of Collectorate. Out of these, the *Ss* of groups (i) and (ii) went to constitute the hazardous group and the *Ss* of groups (iii) and (iv) went to constitute the non-hazardous group. The four groups were previously rated for job-hazard by 10 persons, two each from among advocates teachers, journalists, social workers and businessmen, and there was unanimity among the judges that the *Ss* of groups (i) and (ii) came from a hazardous occupation whereas those of groups (iii) and (iv) came from non-hazardous occupation. Similarly, the *Ss* of groups (i) and (iii) went to constitute the low job-rank group while those of groups (ii) and (iv) constituted the high job-rank group. Further to it, the police constables and office peons were matched for age, subjects of both the groups having been drawn from the age range of 30 to 40 years. The mean age of the constables was 34.8 years while that of the office peons was 35·6 years. The two groups were also equated for income and education. Likewise, the Assistant Sub-Inspectors of Police and the Office assistants were also equated for income and education and were also drawn from the age range of 30 to 40 years. The mean age of the Assistant Sub-Inspectors of Police was 37.8 years while that of Office assistants was 36·5 years.

For the measurement of religiosity Bhushan's Religiosity Scale (1971) which is a Hindi version of an earlier English Form (1970) was used. The instrument is a fivepoint Likert scale having 36 items and yields a score range of 36 to 180, higher score denoting higher religiosity. The test was administered individually to each subject belonging to the four groups.

RESULTS AND CONCLUSION

A two-way analysis of variance was done and the results obtained are presened in table I. (See next page)

It is obvious from that table of results that job-hazard is a highly significant and critical variable in religiosity. The *F*-ratio for hazard is significant at ·005 level (one-tailed test). The mean religiosity score of the hazardous group is 123·02, and that of the non-hazardous group is 94·98. The first hypothesis is, thus, clearly

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Table—I : Sources of Variance And F-Ratios

Sources	*Ss*	*df*	Estimation of variance.	*F*-ratio	Significance level
Hazard (H)	1572·48	1	1572·48	10·86	·005 (one-tailed test)
Job Rank (R)	128·00	1	128·00	·88	*ns*
Interaction (H X R)	450·00	1	450·00	3·11	*ns*
Within Sets	28404·00	196	144·92		
Total	30554·48	199			

verified. The F-ratios for job-rank and interation (hazard x rank) are both insignificant. Job-rank has, thus, not emerged as a critical determiner of religiosity. Further, there has not been a significant interaction between job-hazard and job-rank The second and third hypotheses have thus, failed to be verified. One probable reason of job-rank emerging as an insignificant factor is that the office assistants and assistant Sub-Inspectors of police which have been made to constitute the high-rank group are really not 'high" in the true sense of the term and only represent a slightly higher group than the constables and Office peons. In fact, the availability of high Executive Officers and, specially, high Police officers in good number was a problem and the study had to be limited to such groups which were only slightly higher in rank than the "low-rank" groups. The difference of rank was probably not large enough to cause significant difference in religiosity.

The study, thus, led to the following conclusions:

(i) Persons in hazardous jobs are significantly higher in religiosity than persons belonging to non-hazardous jobs.

(ii) There does not exist a significant difference between the religiosity scores of persons belonging to low and high job-ranks.

(iii) Job-hazard and job-rank do not interact significantly in the determination of religiosity scores.

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Indian Psychological Review
1976, Vol. 13, No. 2. p 4—8

THE STUDY OF ADJUSTMENT AMONG UNMARRIED HINDU AND MUSLIM FEMALES

(A Cross-Cultural Study of Hindu and Muslim Cmmunities)

G. S, Gupta
Govt. Raza P. G. College, Rampur (U. P.)

The present study is designed to find out the relationship between cultural practices and the adjustment proceess. To test the hypethesis hundred unmarried females students were taken from the schools situated in the urban areas of Rampur city (U.P.). Students were taken from Hindu and Muslim cultures Mittal's adjustment Fnventory was used to find out their adjustment. The t test was applied to find out significance of difference between the mean adjustment scores of two cultures. Results show that there is no significant difference in any area of adjustment between Hindu aud Muslim culture.

INTRODUCTION

Psychology studies man's behavior in relation to his environment. Adjustment is an important characteristic of living organism, which covers almost the whole beheviour. "Adjustment is a process by which a living organism maintains a balance between its needs and the circumstance that influence the satisfaction of these needs." It is a continuous process. Methods of adjustment undergo continuous modification as the individual develops with age and experience.

During infancy, adjustment problems centre around the routines of eating, sleeping and physical care. Social adjustment are at a minimum. During childhood social adjustment appears. Duriug adolescence social and sexual adjustment problems come to the force. In middle age, the marriage of chidren and their departure entails a series of new adjustment. Old age, in ture brings its unique set of adjustment problems : retirement, reduction of income, waning of physical power, yielding of responsibility to others, all demands new adjustment. In this way adjustment is so important, a behaviour that each period of life demands a somewhat unique set of adjustments for the individual.

Now what is culture ? Culture is a guide to an individual or to a society. "The culture as whole provides the members of any society with an indispensable guide in all the affairs of life." Culture provides the raw material of which the indi-

1. Gopal Sharan Gupta, Lecturer in Psychology, Govt. Raza Post-graduate College, Rampur (U. P.) India.

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vidual makes his life. If it is meagre, the individual suffers ,if it is rich the individual has the chance to rise his opportuntities. On one side, behaviour is shaped by the hands of culture and on the other side behaviour is a series of adjustment processes. Hence, the question arises whether culture and adjustment are related ? The present study aims to find out the relationship between cultural practices and adjustment processes.

Related Studies: There are many studies; which are concerned with finding out the relationship of adjustment with intelligence, creativity, extroverted and introverted personalty etc. The finding of these studies are as follows:

Shrimali, P. L. (1951) studied adjustment problems of pupils and teachers. D'Souza, H. J. (1956) studies the problems of Indian graduate students in American universities. Rama Devi, B. (1960) studied the adjustment problems of married and unmarried women teachers. Gupta, R. P. (1961) studied the adjustment problems of the educated scheduled caste students. Agarwal, A. K. (1961) studied the adjustment of the youngest girl. Ram, V. (1962) studied the adjustment problems of foreign students in Delhi. Misra, Rekha (1963) studied the adjustment of first born boys and first born girls in the family. Bhanot. K. P. (1963) studied adjustment problems of very bright children. Mohammad Bi (1964) studied adjustment and mal-adjustment among university students. Ra-O, S. N. (1965) studied problems of adjustment and academic achievement. Randhawa, R. S. (1965) studied the relation between home adjustment and school adjutsment among higher secondary school boys & girls. Dhapola, T. S. (1967) studied adjustment and extroversion-neuroticism Mittal, V. K. (1968) studied adjustment and attainment of high school students. Agarwal, M. C. (1969) studied adjustment among extroverted and introverted college adolescent. Bhatt, K. K. (1969) studied the problems of adjustment of hostel students, Ghosh, Ratna (1969) studied premature sex-experience and marital adjustment. Chawla, T. R. (1970) studied the relation between adjustment and academic achievement. Lapa, K. (1973) studied the adjustment of married and unmarried literate females.

Review of the above cited studies clearly indicate that, no stud yis available in cross-cultural context especially corralating culture with adjustment. Hence, the present study was undertaken to prove deeper into the problems of such virgins of different cultures which they face in their adjustment.

METHODOLOGY

Subject : The study was conducted upon the 100 unmarried female students. 50 Hindu unmarried female students and 50 Muslim unmarried female students were taken. Out of these 100 students 50 were taken from Art, faculty and 50 from Science faculty. Sample design is as follows.

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Hindu unmarried female students.	Arts group	25
Hindu unmarried females students.	Science group	25
Muslim unmarried females students.	Arts group	25
Muslim unmarried female students.	Science group	25
	Total =100 *Ss*	

All the subjects were taken from Govt. Khurshid Girls Inter College and Ram Prasad Girls Higher Secondary School, Rampur (U. P.) by random method.

Variables and their Control : The Independent variable is culture and the dependent variable is adjustment. Students were matched on the criterion of age, socio-economic status and intelligence. Syllabus was uniformly applicable in both the schools. All the students were females. Other relevant variables were controlled as far as possible.

Tool : Mittal's Adjustment Inventory was used as a tool for data collection. The test consists of 80 questions. It measures adjustment in four areas—(a) Home adjustment, (b) social adjustment, (c) health and emotional adjustment, and (d) school/college adjustment. It takes 70 to 75 minutes in its completion. Answers are rated on a three point rating scale, Yes, No and Doubtful. Reliablity of the inventory ranges between 0.50 to 0·99.

Data and Analysis. The entire data collection was made on the same day and in one sitting. Rapport was established before the actual administration of the inventory. After collecting the data statistical measures such as mean, standaed deviation, tt-est were applied. Data with statistical measures are shown in table No.-1, 2, 3, and 4.

Table—1 : Significance of Difference In Home Adjustment Among Hindu And Muslim Culture.

Group	Culture	*N*	Mean Score	S. D	*C. R.*	L. S.
Arts	Hindu	25	51·47	15·2	0·39	*N. S.*
	Muslim	25	49·47			
Science	Hindu	25	52·07	15·4	0·67	*N.S.*
	Muslim	25	44·73	11·77		

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Table-2 : Significance of Difference In Social Adjustment Among Hindu And Muslim Culture.

Group	Culture	*N*	Mean Score	S. D.	*CR*	L. S.
Arts	Hindu	25	46·33	20·6	0·72	*N. S.*
	Muslim	25	58·87	17·6		
Science	Hindu	25	46·80	05·19	0·26	*N.*
	Muslim	25	47·27	05·27		

Table-3 : Significance of Difference In Health And Emotional Adjustment Among Hindu And Muslim Culture.

Group	Culture	*N*	Mean Score	S. D.	*C. R.*	L. S.
Arts	Hindu	25	53·60	6·85	1·7	*N. S.*
	Muslim	25	49·00	8·09		
Science	Hindu	25	56·93	10 96	1·39	*N. S.*
	Muslim	25	50·93	12·75		

Table-4 : Significance of Difference In School/College Adjustment Among Hindu And Muslim Culture.

Group	Culture	*N*	Mean Score	S. D.	*C. R.*	L. S.
Arts	Hindu	25	47·40	2·88	1·20	*N. S.*
	Muslim	25	46·20	2·61		
Science	Hindu	25	56·20	8·20	1·40	*N. S.*
	Muslim	25	51·93	11·13		

L. S. denotes level of significance.
N. S. denotes not significant.

RESULTS AND DISCUSSION

The *t*- test was applied to find out the significance of difference in mean adjustment between two cultures. Significance of difference was cal culated in all the four areas of the adjustment. which is shown in table no. 1, 2, 3 and 4 respectively. Table—1, shows that there in no significance of difference in home adjustment between unmarried female students of Hindu and Muslim culture. Table-2,3 and 4 show that there is no significance of difference in social, health and emotional and school adjustment among unmarried female students of Hindu and Muslim culture.

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The conclusion of above study is that culture has no effect on the adjustment of unmarried female students. Perhaps its root cause is democracy and secularism in India. Students from both the culture live togather and study togather. Their modes of dressing and method of living are also similar. Apart from these factors they have got very good familial relations too. The results obtained from the above study prove that culture has no effect on the adjustment of the unmarried females students.

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1976, Vol. 13, No. 2, p. 9—10

RESIDENTIAL DIFFERENCES IN SELF-DISCLOSURE

A. D. Tripathi
Govt. P. G. College, Pithoragarh, U. P.

Three hundred and fifty three urban (male and female) and one hundred and fifty five rural (male and female) literate mid-adolescent students of age range 15-17 years of Bhotia community of Kumaon Hill Region, U. P. were administered. Sinha's Self-Disclosure Inventory to explore residential differences in self-disclosure. Results show that self-disclosure varies with regard to residential (urban/rural) background of Bhotia adolescents.

INTRODUCTION

Self-disclosure refers to the process of making the self known to the other persons. The process of self-disclosure has been studied by many Psychologists from various points of view. Many current studies have underlined the importance of willingness to disclose to others one's feelings, wishes, ideas and attitudes as one of the major criteria of healthy personality (Jourard, 1958; Plog 1965; Rogers 1961), and, a few others have characterized this as one of the major aspects of basic personality (Lewin, 1935, Melikhian, 1962). Urban and rural differences have been explored by Sinha (1974) in adolescent of Non-Bhotias of Bareilly region.

The purpose of the present study was to investigate residential differences in self-disclosure. It is hypothesized that urban and rural Bhotia mid-adolescents differ significantly in self disclosure.

METHOD

Subject : 353 urban (male and female) and 155 rural (male and female) literate mid-adolescent students age range 15-17 Years were the subject of this study. The selections of the subject and institutions were made randomly. Both groups were matched with regard to socio-economic status and educational level.

Tool : Sinha's Self-disclosure Inventory (1973) was used to assess the total self-disclosure. This inventory measures the extent of self-disclosure in eight areas of self and to six target figures. Simple addition of the self disclosure in different areas or to different target figures gives the total magnitude of self-disclosure by the subject. The reliability coefficient of the Sinha's Self scale has worked out on Bhotia sample, i.e. 0·95 and validity ranges between 0·92—0·96.

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Test of Inference : Since Sinha's Self-disclosure Inventory is a self rating scale and the data are not expected to be normally distributed (Sinha, 1972) the non-parametric statistics of extension of median test (Siegal, 1956) was used for the purpose of inference.

RESULTS AND DISCUSSION

Table—1. Residential Differences in Self-Disclosure.

Level of Adolescence	Total Self-disclosure (Medians)		Chi-Square	
	Urban	Rural		*P*
Mid-adolescence	470·00	507·00	6·97	·01

Value of Chi-Square to be significant at 1 df & at 1 0 level.

Table-1 shows the group median total self-disclosure scores of urban and rural Bhotia mid-adolescents are significantly different at ·01 level of confidence. The median scores of urban and rural groups are 470.0, 507·0 respectively. These magnitudes indicate that the extent of self-disclosure varies with the residential background of Bhotia mid-adolescents of Kumaon hill region, U. P. This clearly indicates that rural Bhotia adolescents disclose more than urban adolescents. It may be said that social set up of Bhotia community is such that rural adolescents are observing less inhibition and taboos which increase the amount of self-disclosure in comparision to urban adolescents. Hence, it may be inferred that urban and rural Bhotia adolescents are not equally expressive and communicative and the residential backgrounds (urban/rural) of Bhotia adolescents appears to make impact on their self disclosure.

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EFFECTS OF KNOWLEDGE OF THE ITI ON LINE ESTIMATES

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With a view to studying the effect of knowledge of ITI on line estimates, a 2X3 factorial experiment was conducted with 48 male subjects of under graduate classes of L. S. College, Muzaffarpur. With knowledge of the ITI (K) and without knowledge of the ITI (WK) constituted the two groups and filled, half-filled and unfilled lines were three kinds of stimulus lines. The data obtained were analysed using analysis of variance technique. Student's *t*-test was also used for some group comparisons. The K group was significantly more accurate in their estimates, on all kinds of stimulus lines than the WK group.

INTRODUCTION

Numerous studies have shown that knowledge of results (KR) produce positive effects on the performance of *Ss* on various perceptual-motor abilities (*e. g.* Greenspoon and Foreman, 1956; Robinson, 1963; Dayal, 1964; Thakur, 1971). Hoyer *et al.* (1970), in a study, investigated the effect of giving knowledge (K) about the length of inter-trial interval (ITI) on accuracy of time intervals. The main effect of K was significant. Effects of knowledge of length of ITI on other similar abilities have, probably, not been reported in the literature. With this in mind, it was the purpose of this investigation to conduct a study in which effect of knowledge of length of ITI on line estimates could be ascertained.

METHOD

Subjects : 48 subjects were male students of Undergraduate classes of L. S. College, Muzaffarpur. Their ages ranged from 17 to 20 years with a mean age of 18·73 year. None of the *Ss* had previous experience of line estimation experiments.

Stimulus Lines : 10 centi meters long filled, half-filled and unfilled horizontal lines were drawn in the middle of three white Cardboards of 10″×10″ size, one board having one line only. The lines were drawn in black in K. On one card-

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board, two points were put at a distance of 10 cms. from each other and a straight line was drawn between the two points. This was 'filled stimulus line'. Two points were again put on the second card-board at a distance of 10 cms. from each other and a line was drawn from one point to the distance of 5 cms. towards the other point i.e. upto the half of the distance, and remaining 5 cms. space was left blank. This was 'half-filled stimulus line'. The third card-board had only two points at a distance of 10 cms from each other. This was 'unfilled stimulus line'.

Procedure : A 2X3 factioral experiment was conducted. With knowledge of the ITI (K) and without knowledge of the ITI (WK) constituted the two groups and filled, half-filled and unfilled lines were three kinds of stimulus lines. 48 *Ss* were randomly divided into two groups of 24 Ss each for K group and WK group. 24 Ss of each group were further randomly divided into three groups of 8 *Ss* each for the filled stimulus line, the half-filled stimulus line and the unfilled stimulus line respectively. Each *S* was provided with a data sheet and was given 5 trials preceded by two practice trials, making a total of 7 trials. A screen was placed between the *S* and the *E* so that the *S* could not see stimulus lines etc. before and after presentation. The *Ss* were shown stimulus lines individually and not in group. The distance between the stimulus line and the eyes of the *S* was kept constant in each trial with the help of a Chin rest. The light of the laboratory was also constant in each case. The *Ss* of the K group were given the following instructions :

"You will be involved in an experiment to test the accuracy of line estimation. You will be shown different stimulus lines and you are to judge the length of various lines in the unit of centi meters. You will see a line of 1 centi meter for your idea before you are shown the stimulus lines. You will record your estimation on the data sheet provided to you. I will wait 15 seconds before I show you another line for estimation. There will be 5 trials preceded by 2 practice trials, making a total of 7 trials. The difference between your group and the other group will be that you will know the time gap between different trials i.e., 15 seconds and the other group will not have this information. Kindly do not, in any way, convey this information to the other persons."

The WK group was given similar instructions except the length of the ITI. Each line was shown to the subjects for 5 seconds only.

RESULTS AND DISCUSSION

The data were analysed using analysis of variance technique and results have been reported in Table-1.

Table 1 : Summary of Analysis of Variance.

Source	*df*	*Ss*	Ms	*F*	*P*
Knowledge of the Length of ITI (K)	1	108·50	108·50	24·60	< ·01
Stimulus lines (*S*)	2	330·40	165·20	37·46	< ·01
K X S	2	13·80	6·90	1·56	> 05
Error.	42	185·60	4·41		
Total.	47	638·30			

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An inspection of table-1 reveals that both the main factors viz. Knowledge of the length of ITI and stimulus lines have got significant influence on line estimates, the values of *F* being 24·60 and 37·46 respectively which are significant at or beyond 1% level of confidence. The only first order interaction viz. Knowledge of the length of ITI X stimulus lines did not reach the level of significance at or beyond 5% level of confidence, the value of *F* being 1·56.

An attempt has been made to find out mean estimates (in *cms*) of both the groups (K & WK) in relation to different nature of stimulus lines under study. The results have been reported in Table-2.

Table—2. Mean estimates (in cms) of K and WK groups and their deviations from 10. cms stimulus lines of different nature.

Groups.	Nature of lines.	Mean (cms.)	Nature & extent of errors.
WK	Filled.	6·6	—3·4
	Half-filled.	14·7	+4·7
	Unfilled.	16·2	+6·2
K	Filled.	10·4	+0·4
	Half-filled.	8·6	—1·4
	Unfilled.	11·7	+1·7

A look into Table-2 indicates that the K group has comparatively more correct estimation as compared to the WK group on all kinds of stimulus lines under investigation. Nature and extent of errors varies from—1·4 to 1·7 and —3·4 to 6·2 for K group and WK group respectively. Mean estimates of WK group and K group for filled, half-filled and unfilled stimulus lines were put to *t*-test of significance and the results have been reported in Table 3.

Table—3 Student's *t*-test of significance.

Groups Compared.	*N*	Mean.	SD	*t*	*P*
(i) WK (filled)	8	6·6	1·3	5·76	<·01
K (filled)	8	10·4	1·2		
(ii) WK (half-filled)	8	14·7	1·8		
K (half-filled)	8	8·6	1·6	6·70	<·01
(iii) WK (unfilled)	8	16·2	2·3		
K(unfilled)	8	11·7	1·9	4·02	<·01

Table—3. reveals that mean performances of both the group viz. WK and K differ significantly on different nature of stimulus lines viz. filled, half-filled and unfilled lines, the values of being 5·76, 6·70 and 4·02 *r* respectively. Further, mean estimates of WK and K groups were compared in three ways (filled *Vs.* half-filled, filled *Vs.* unfilled and half-filled *vs.* unfilled) using student's *t* test of significance. The results of such comparisions have been reported in Table-4.

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Table 4. Student's *t*-test of significance

Groups Compared.	*N*	Mean	*S*	*t*	*P*
(i) WK (filled)	8	6·6	1·3	9·76	< ·01
WK (half-filled)	8	14·7	1·8		
(ii) WK (filled)	8	6·6	1·3	9·69	< ·01
WK (unfilled)	8	16 2	2·3		
(iii) WK (half-filled)	8	14·7	1·8	1·36	> ·05
WK (unfilled)	8	16·2	2·3		
(iv) K (filled)	8	10·4	1·2	2·40	< ·05
K (half-filled)	8	8·6	1·6		
(v) K (filled)	8	10·4	1 2	1·55	> 0·5
K (unfilled)	8	11·7	1·9		
(vi) K (half-filled)	8	8·6	1·6	3·29	< ·01
K (unfilled)	8	11·7	1·9		

It is evident from Table-4 that mean performances of the WK group when compared filled *vs.* half-filled and filled *vs.* unfilled reached the level of significance but when compared half-filled *vs.* unfilled, it did not reach the level of significance, the values of *t* being 9·76, 9·69 and 1·36 respectively. Similarly, mean performances of the K group when compared filled *vs.* half-filled and half-filled *vs.* unfilled reached the level of significance but when compared filled *vs.* unfilled, it did not reach the level of significance, the values of *t* being 2·40, 3·29 and 1·55 respectively. Hence, it is evident from this experiment that knowledge of the length of the ITI produce positive effects on line estimates.

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A STUDY OF THE RELATIONSHIP BETWEEN SPEED AND ACCURACY OF PERFORMANCE ON THE SIMPLE TASK IN HIGH AND LOW ANXIETY SUBJECTS

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An attempt has been made to compare the performance of high and low anxiety groups in terms of speed and accuracy on simple task. On the basis of above results it could be concluded that the high and low anxiety groupe differ significantly with respect to their performance on simple task. The relationship of speed and accuracy is dependent on the level of anxiety.

INTRODUCTION

Hull (1943) proposed that all habits activated in a particular stimulus-situation combine in a multiplicative function with total drive state to yield the excitatory potential of a response. On the basis of this Spence predicted that in a simple situation in which one habit is evoked, the higher the drive the greater the response strength. Thus, the performance of high anxiety subjects should be superior to that of the low anxiety subjects in such situations. In a complex situation in which several competing responses are evoked alongwith the correct one, high drive interacts with each habit to increase the strength of a number of different responses. Thus the performance of low- anxiety subjects should be superior to that of high-anxiety subjects in these situations. These predictions have led to a large number of investigations yielding largely confirmatory findings. As a maze constitutes a relatively complex situation involving a number of competing responses. Taylor and Spence (1952) obtained the results that anxious subjects did less well than the non-anxious subjects both in terms of number of errors and number of trials to criterion in maze learning. In Reynolds, Blau and Hurlbut's (1961) experiment the task required subjects to draw lines above the letter X and below the letter 0 for a group of these letters typed randomly on a sheet of a paper, the score was number completed in a two minute period. On this simple task the high-anxious subjects completed significantly more lines than the low-anxious subjects. In Bendig's study (1959) the scores on MAS correlated-28 with scores on the puzzles.

On the basis of the above findings an attempt was made to compare the performance of high and low-anxiety groups in terms of speed and accuracy on simple task. It was also thought worthwhile to study the relationship between speed and accuracy in such subjects.

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METHOD

Sample : 150 female students of undergraduate classes of Agra, were administered Sinha Anxiety Scale (1966). Out of them 36 were above Q_3 and 32 were below Q_1 of the obtained distribution. Thus only 68 subjects were included in the final sample.

Material : Cancellation sheet were used on which alphabets were printed in a random order and Sinha's Anxiety Scale was used to measure the level of anxiety.

Procedure : The subjects were required to cross out all the vowels fastly as well as accurately in 10 minutes time. When any vowel was left out or when any consonant was cancelled out by the subjects, both were treated as the errors.

RESULTS AND DISCUSSION

Table I. Means. S. Ds. and t-values of high and low-anxiety subjects.

	High-anxiety Group		Low-anxiety Group		Difference Between the Means	t	p
	Mean	S. D.	Mean	S. D.			
No. of cancelled letters	247·16	11·40	240·20	9·86	6·96	2·71	>·01
No. of errors	23·80	8·25	20·35	6·50	3·45	1·92	<·05

Table No. 1 show that the high anxiety group scored significantly higher than the low-anxiety group. The obtained t-value of the difference between the two means was 2·71, significant at .01 level. As the task employed in the study was very simple, there were the maximum chances that only one habit was evoked, Hence, the results confirm the Hull-Spence prediction that higher the drive greater the response strength. Thus in respect to the number of cancelled letters during 10 minutes period, the performance of high anxiety group was superior to that of low-anxiety group.

On the other variable used in this study the performance of the low anxiety group was found to be superior to that of high anxiety group. The figures given in Table-I show that the high anxiety group did more errors on the average than the low anxiety group. Though the difference of 3·45 between the two means was not statistically significant the t value of 1·92 was obtained but it was approaching the required value of 2·00 at ·05 level.

Thus, these results are suggestive of the fact that the high anxious subjects do the work fastly but not very accurately as compared to the low-anxious subjects.

To investigate the relationship between speed and accuracy of the performance on simple task in high and low-anxiety subjects the Pearson's r was calcula-

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ted between the total number of cancelled letters and the number of errors.* For the high anxiety group the correlation coefficient was—·25 (P / ·05) *i.* e. with the increase in the speed the accuracy decreases. For the low-anxiety group the correlation co-efficient was ·41 (significant at ·01 level). This positive value indicates that the increase in speed is related to the increase in accuracy. The significance of the difference between two r' s was 2·8 significant at ·01 level.

CONCLUSIONS

Thus on the basis of above results it could be concluded that the high and low-anxiety groups differ significantly with respect to their performance on simple task. The high-anxiety subjects are superior for their speed of performance to the low-anxiety subjects. The low-anxiety subjects are superior for their accuracy of performance to the high-anxiety subjects. The relationship of speed and accuracy is dependent on the level of anxiety. This relationship is positive for the low-anxiety group and negative for the high-anxiety group.

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* Correlation was not computed between the total number of cancelled letters and the number of correct cancellations done because the errors of omissions i. e. leaving out the vowels uncrossed were frequent and were not to be taken into account by this way. Thus in the present investigation the lower the errors the higher the accuracy, hence the scores for this variable were arranged in the descending order i.e., from high to low while preparing the scattergram.

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WORK ALIENATION, ITS ATTITUDINAL CONSEQUENCES ON INDUSTRIAL WORKERS

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99 blue collared workers of craft technology, assembly line and automated technology were selected for the study. The index of work alienation was obtained through the discrepancy score in two Semantic Differential Scales, measuring orientation and meaning of work. The attitude of socio-political alienation (powerlessness) was measured through socio-political alienation scale of Neal and Retting. Work alienation was found to be positively correlated with the attitude of socio-political alienation held by the workers.

INTRODUCTION

The centrality of work-experience in an individual's life is beyond doubt. In the age of secularism and mass urbanization, when work has separated from religion and community, the role of work in individual's life has drastically changed. For the first time in the human history, the social scientists of past one and a half century are confronted with the problem of integrating the worker to his work. Thus the focus of consideration shifted from "what the work does for the people" to "what the work does to the people". The social relevance of the problem is further aggravated by the contentions and findings that work alienation not only effects the efficiency and productivity of industry, but also has its consequences on the mental health of the worker on his attitudes and on his overall adjustment in life (Kornhauser, 1965).

In essence the probability is high that by exposing the worker to alienative working conditions the industries are producing a class of social units which have undesirable social values and attitudes.

The present study focuses on the very problem—work alienation and its diffusion into the socio-political attitude of the worker. The following hypotheses was formulated. Work alienation (i. e. the discrepancy between orientation to work and experience of work) is positively correlated with the attitude of socio-political alienation held by the worker in three automated levels."

Sample : A sample of 99 blue collared workers, divisible into three subsamples was selected for the study. One sub-sample of 36 printing craft workers (hand compositors, lenotype and monotype operators and machine men) represented craft technology. Second sub-sample of 31 workers of bottling sections of U.P. Co-operative Milk Producers Union, Lucknow and Mohan Meakin Breweries, Lucknow stationed on a moving convey or belt with the task of labelling, washing, filling or bottling represented assembly line technology. Third sub-sample of 32 technicians from U. P. Telephone Industries whose work consisted of supervising the self-operating machinery in the switch room, finding and rectifying the reported faults in the apparatus represented automated technology.

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Method—Three scales were utilized for the purpose of study.

I. A scale of socio-political alienation (Neal, A. & Seeman, M.) was translated in Hindi by back translation method. The scale was administered on all the three sub-samples as a 'public-opinion scale'. It consisted of two alternative statements—one representing the attitude of socio-political alienation (powerlessness) and the other signifying a well integrated and healthy attitude toward socio-political life. The subject was to choose one of these two statements with which he agreed most. The individual was given score "1" on each item in which he agreed with the powerlessness-representing statements and was scored 'O' on each item in which he agreed with the integration-representing statement. His score of socio-political alienation was determined by summing up the scores over all the items.

II. *Semantic Differentials*—Two Semantic Differentials were developedby, the investigators to measure the meaning of the two concepts "what my work is" (i.e, meaning of work) and 'what my work should be" (i. e. orientation to work by Expert's Rating Method. There SD's consisted of 15 biopolar adjectives each of them fall on intrisic dimension. Each adjective pair was checked on a 7 point scale. Scores from 1 to 7 were assigned to each point according to the low and high intrinsic value of each adjective of the pair.

The index of work alienation was the discrepancy between the scores of the two Semantic Differentials.

DISCUSSION

Previously, the worker as a skillful artisan had been the master of his work. The work was oriented more toward the producer and less toward the consumer. With Industrialization, came the mass-production technology and consumer oriented values i. e., work became depersonalized and the problem of work alienation became a mass phenomenon.

The hypothesis tested in the study was supported and sustained by the obtained results. The analysis of the quantitative data clearly reveals a positive correlation between alienation from work and socio-political alienation (See Table 1).

Table I. Showing the relationship between socio-political alienation scores and work alienation scores in automated levels.

	X			Y		
	Socio-political Alienation			Work Alienation		
	Craft Technology	Assembly Line	Automated Technology	Craft techno—logy	Assembly Line	Automated technology
N	36	31	32	36	31	32
M	2·86	5·39	3·13	0·98	2·58	0·63
xy	Highly significant at ·01 level					

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The coefficient of correlation ·47 (significant at ·01 level) means that it is quite likely that the alienation from work is transferred to the worker's general attitude of alienation toward the socio-political aspects of his life. But a causal relationship can't be predicted since the study was ex-post facto. Though an effort was made to eliminate the potential influence of one demographic variable (Educational qualification) on socio-political alienation.

The assembly line technology workers, who showed highest work in alienation and socio-political alienation were mostly illeterates. The craft workers of the printing press had education upto junior and high school and Telephon technicians within the range of high school to Graduation. Since the responses for the soale of socio-political alienation required a knowledge and individual's educational experience, it was quite probable that the positive correlation between work alienation and alienation in socio-political life may actually be a result of correlation between socio-political alienation and the self-selected variables of education.

To test this doubt, the educational variable was quantified by assigning the individual one score for each passed school grade. A partial correlation coefficient between work alienation and alienation in socio-political life was computed, keeping the educational variable as constant. The partial co-efficient of correlation came out to +·43, which is still highly significant at ·01 level of confidence. The obtained results confirm the findings of Marcuse. Erich Fromm Kornhauser (1965) whe stated that the work-alienation experienced by the worker at least eight hours per day, would generalize out into his social and personal life and would affect his attitude and values toward life in general.

Though Seeman (1967) proved this warning to be just a false alarm. However his studies though taking into account the notion of "orientation to work" did not attempt to relate the generalized alienation with the discrepancy between "orientation to work" and "Experience with work" a model proposed by Gold Thrope (1965).

Data was further analyzed to determine as to what particular characteristics of work, on which the individual is alienated, correlate significantly with his socio-political alienation.

For this the discrepancies between scores on each scale of the two semantic Differentials were separately correlated with the socio-political alienation scores (See Table 2). It was found that work-characteristics which correlated positively with socio-political alienation at ·01 level of significance fell on these continuums (1) Boring-lively,(2) Unpleasant-pleasant, (3) Dull-interesting,(4) meaningless-meaningful, (5) Mechanised-skillful and (6) Tense-Relaxed.

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Table 2. Showing coefficients of correlation between work alienation on each work characteristic continuum and socio-political alienation.

Work-characteristics continuum	Coefficients of correlation *rxy*
Simple—Complex	—·09 (not significant)
Passive—Active	+·24 (significant at ·05 level)
Boring—Lively	+·31 (significant at ·01 level)
Meaningless—Meaningful	+·25 (significant at ·01 level)
Easy—Difficult	—·23 (significant at ·01 level)
Mechanised—Skillful	+·33 (significant at ·01 level)
Unpleasant—Pleasant	+·44 (significant at 01 level)
Tense—Relaxed	+·29 (significant at ·01 level)
Dull—Interesting	+·44 (significant at ·01 level)
Constrained—Free	+·22 (significant at ·05 level)
Inert—Energetic	+·09 (not significant)
Effortless—Laborious	+·04 (not significant)
Routine—Challenging	+·17 (not significant)
Dependant—Autonomous	+·20 (significant at ·05 level)
Repetitive—Varied	+·17 (not significant)

X =Socio — political alienation.

Y =Work — alienation on each work-characteristic continuum.

The incluence of affective characteristics of work (i. e., continuums (1), (2) and (3) are of special significance, since they have been least stressed upon by the previous investigatrs. It is true that by their nature, there characteristics are largely subjective and lack an objective and operational definition. Yet it can't be ignored that an individual who is perpetually exposed to a dull, boring and unpleasant work-experience may develop a gloomy attitude toward life or may becames desensitized towards the affective aspects of life by his "I don't care" attitude.

The critics of Industrial order have widely discussed the meaninglessness of work-experience. Fractionalized job assignments, cyclic work rhythme and the anonymous atmosphere of the large plants, negates the sense of meaning, purpose and function in the worker. If these harrowing experiences penetrates the individual's personal morale in life, he would begin to view his social environment as a playground of arrbitrary forces, and would feel himself as powerless in facing them.

The pace and technique of work is determined by external forces, the mechanised job restricts the worker's initiative and potential indecision-making, while reverse is the case in skillful jobs. So in skillful jobs, the atmosphere is

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relaxed, free of work pressure and tension, while in mechanised job, regulated by the speed of conve yor belt compounds tension in the process of keeping abreast with the speed of machine. This tension studies have shown, cumulates to create physical disorders like peptic ulcer and high blood pressures. Sometimes nervous breakdown also occurs in tensed individuals. It would not be surprising if the individual living on the edge of his nerves would view his world as hostile and formidable, this will have an impact on his attitudes toward life.

Other features of work experience, alienation on which, was positively correlated at ·05 level of confidence fell on these continuums (1)—Passive-active (2) Constrained-free and (3) Dependant-autonomous.

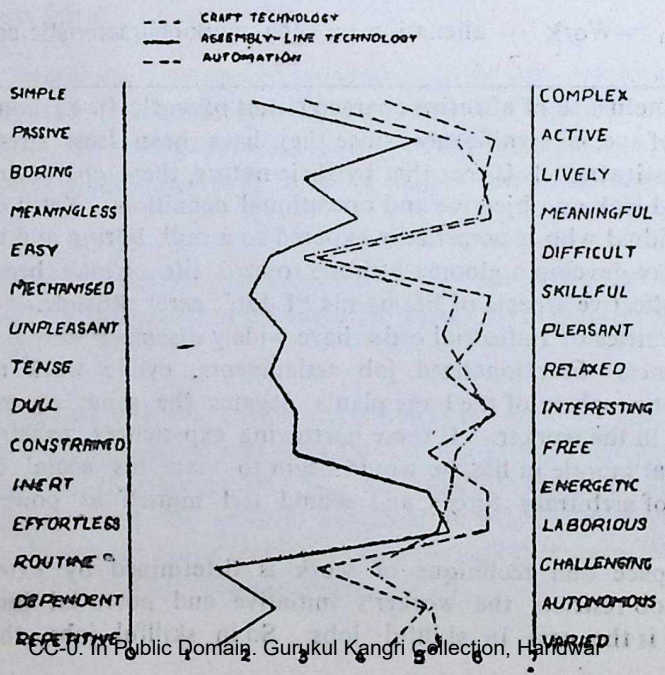
The basic need of an individual is to be active, which giveds him a psychological feeling of worth and purpose. Perception of oneself as inactive and passive is a threat to his identity. If through continuuus negative experience of work, the worker begins to think of himself as a passive individual, he would perceive things, events and forces as uncontrollable and his attitude would be of apathy and pessimism.

Similar logic applies to other two continuum. If he finds his work dependant and restrictive, he would, outside the premises of work, face the world as a helpless and powerless individual.

No significant positive correlations with socio-political alienation were found on the following dimensions : (1) Inert-Energetic (2) Effortless-laborious (3) Routine-Challenging (4) Repetitive-varied.

GRAPH·1

SEMANTIC GRAPHS OF MEANING OF·WORK IN THREE TYPES OF TECHNOLOGY



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By inspecting the graph's we find that the first two dimensions were not very differentiating in the experience of work in different technological settings. Data also indicates that almost all workers found their work equal in requiring effort and labour though it had been expected on the basis of previous studies that individuals not finding their work challenging and varied would experience their need of varied stimulation being stultified, which in turn will influence their attitudes toward life.

The study, however, does not show significant result in this regard, though there was a positive correlation. This only implies that work alienation on these features of work had no significant effect on those aspects of individual's life which was being measured by the socio-political alienation scale.

of special interest are the results obtained on two scales : Simple-Complex and Easy-Difficult. Work alienation on these scales showed a negative correlation with the individual's socio-political alienation—Though the correlation with work alienation on simple-complex dimension was insignificant (—·09), it was significant at ·05 level for the easy difficult scale (—·25), simple and easy were scored intrinsically low valued and complex and difficult as intrinsically high valued, on the assumption that the more complex and difficult a task, the greater would be its challenge to the worker. Performance of such a task would give the worker a sense of accomplishment and would enhance his occupational esteem in his own eyes. Yet, apparently, the results do not support our assumption.

One explanation, apart from irrelevancy of assumption, may be given that there was a confusion in the interpretation of these adjectives, while some workers responded as what their work is for should be, objectively, simple/complex and easy/difficult, others, interpreted them in a phenological sense; how their work is or hould be for them. The dual criteria of responding became obvious in worker's remark, "I don't mind my work being complex as long as it remains simple for me". Thus due to the ambiguity in the meaning of these adjectives, no precise conclusion can be drawn regarding them.

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MANIFEST ANXIETY, SEX DIFFERENCES AND EDUCATIONAL PERFORMANCE.

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One hundred under-graduate students of Meerut University were administered Sinha's W. A. Self-analysis Form to measure the levels of manifest anxiety. Their examination scores were taken as the scores of their educational performance. The present study reveals that the subjects belonging to the higher level of manifest anxiety secure more educational performance scores than those subjects who belong to the lower and moderate levels of manifest anxiety, and that the mechanism of manifest anxiety works differently for male and female subjects.

INTRODUCTION

A number of experimental studies have been conducted to establish some relationship between anxiety scores and the performance of the individuals (French 1962, Paul and Erikson, 1964, Sarason, 1963, Singh, 1966, Sinha 1961, Sinha and Singh, 1958, Spence and Farber, 1953, Spence, Taylor and Rhoda, 1956, Spielberger 1962, Spielberger and Katzenmeyer, 1959, Taylor and Chapman 1955, Taylor and Spence, 1952) and to test the drive properties of Taylor's Drive Theory of Manifest Anxiety (Farber 1954, Spence, Farber and McFann, 1965, Spence, Taylor and Rhoda 1956, Taylor 1951, 1953, 1956) but very few of them have shown that the subjects belonging to the higher level of anxiety perform a task better than those who belong to the lower level of anxiety. On the other hand some studies have shown that low anxious subjects were superior to the high anxious subjects on the difficult and complex tasks and high anxious subjects were superior to the low anxious subjects on simple and least complex tasks (Farber and Spence 1953, Montague 1953, Ramond, 1953, Spence Farber and McFann 1956, Taylor and Spence, 1952); while in certain other studies relating to the measure of general anxiety and intellectual performances negative correlations have been found (Grice, 1955, Paul and Eriksen 1964, Sarason 1963, Siegman 1956, Spielberger 1958, 1962, Spielberger and Katzenmeyer 1959). In one study, Sarason (1959), has reported that anxiety was negatively related with several intellectual measures for both male and female subjects.

The Objective of the Study : The objective of the present study was to examine (i) whether there is any relationship between manifest anxiety scores and the educational performance scores and (ii) whether there is any difference between the educational performance scores of those male and female subjects who belong to the equal level of manifest anxiety, age group and educational background.

METHODOLOGY

(a) *Subjects* : One hundred under-graduate students (50 male and 50 female) belonging to the age group of 18—20 years who offered only Hindi, Socio-

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logy, Political Science and one General Course Subject as optional subjects of their study were selected from three post-graduate colleges of Ghaziabad (Meerut).

(b) *Tools.* : Sinha's W. A. Self-analysis Form (anxiety scale) which is highly reliable and valid measure of manifest anxiety (Sinha 1961, 1962, 1963, 1965) was used to identify the levels of manifest anxiety and the marks-sheets issued by the University of Meerut were taken as the measure of the educational performance scores of the subjects.

(c) *Procedure.* The subjects were administered Sinha's W. A. Self-analysis Form thirty days earlier to the commencement of the University examination of April, 1974 and according to the distribution of the anxiety scores they were divided into three anxiety groups—High Anxiety Group (H. A.), Moderate Anxiety Group (M. A.) and Low Anxiety Group (L. A.). The upper 25% whose scores ranged from 39 to 44 formed H. A. group, the lower 25% whose scores ranged from 19 to 24 formed L. A. group and the rest whose scores ranged from 26 to 37 formed M. A. group.

After 30 days of the administration of the anxiety test the subjects appeared in the University examination. Thereafter, the University communicated the examination results to the examinees and the concerned colleges as well. These examination scores were taken as the educational performance scores.

RESULTS

Out of one hundred subjects, the original number of sample, only 95 subject appeared in the examination and the rest 5 subjects dropped out. The comparision of the performance scores of three groups of the subjects (H. A., M. A., L. A.) is being presented in Table No.—1. The group comparision with regards to the performance scores of the male and those of female subjects have been shown in Table No.—2 and 3 respectively. The comparision of the performance scores of those male and female subjects who belong to the equal levels of the anxiety have been shown in Table No.—4.

Table No. 1. : (Group comparision with regards to the performance scores of the three groups of the subjects.)

Levels of anxiety	Mean Performance scores	Standard Deviation	Number	*t*	*P*
H. A.	85·92	19·90	26	2·10	·05
M. A.	76·60	20·30	47		
H. A.	85·92	19·90	26		
L. A.	64·08	19·20	22	5·50	·001
M. A.	76·60	20·30	47		
L. A.	64·08	19·20	22	13·91	·001

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Table No. 2.—: (Group comparision with regards to the performance scores of male subjects.)

Levels of Anxiety	Mean Performance Scores	Standard Deviation	Number §	*t*	*p*
H. A.	87·45	19·20	11		
M. A.	70·59	21 90	22	2·22	05
H. A.	87 45	19·20	11		
L. A.	60·15	20·50	13	2·08	·05
M. A.	70·59	21·90	22		
L. A.	60·15	20·50	13	1 43	N. S.

Table No.—3. : (Group comparision with regards to the performance scores of female subjects.)

Levels of Anxiety	Mean Performance Scores	Standard Deviation	Number (§)	*t*	*P*
H. A.	82·13	21·00	15		
M. A.	81·72	18·30	25	·07	N. S.
H A.	82·13	21·00	15		
L. A.	69·77	15·50	09	1·71	·10
M. A.	81·72	18·30	25		
L. A.	69·77	15·50	09	3·00	·01

Table No.—4. : Group comparision between the performance scores of male and female subjects)

Levels of Anxiety	Sex	Mean performance Scores	Standard Deviation	Number (§)	*t*	*P*
H. A.	Male	87·45	19·20	11		
	Female	82·13	21·00	15	0·69	N. S.
M. A.	Male	70·59	21·90	22		
	Female	81·72	18·30	25	2·06	·05
L. A.	Male	60·15	20·51	13		
	Female	69·77	15·57	09	1·32	N. S.

(§) **The performance scores of those 5 subjects who dropped out have not been included in table No.—1, 2, 3 and 4.**

It is evident from table No.-1 that the subjects belonging to the high anxiety group (H. A.) have secured more performance scores than those of moderate anxiety group (M. A.) and the low anxiety group (L. A.), and differences between mean

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performance scores of H. A. and M. A. H. A. and L. A. and M. A. and L. A. are statistically significant.

Table No—2 (Male subjects) shows that the performance scores of H. A. group are higher than those of M. A. and L. A. group; and the differences between the mean performance scores of H. A. and M. A. and between M. A. and L. A. groups are statistically significant. However, the performance scores of M. A. and L. A. group do not show any statistical difference from one another.

Table No—3 (Female subjects) reveals that the mean performance scores of H. A. group are higher than that of L. A. group and the performance scores of M. A. group are higher than that of L. A. group; and that the differences between H. A. and L. A. and between M. A. and L. A. are statistically significant. However, the performance scores of H. A. and M. A. group do not show any difference of significance from one another.

Table No.—4 indicates that the performance scores of male and female subjects do not differ at H. A. and L. A. levels but at M. A. level only.

DISCUSSION AND CONCLUSION

The present study was designed to examine the drive properties of Taylor's Drive Theory of Manifest Anxiety (Taylor, 1956) and according to which it was presumed that the high subjects would secure more performance scores than the low anxious subjects, and that the performance scores of those male and female subjects who belong to the equal levels of manifest anxiety, age and educational background would not differ.

With regards to the drive theory of manifest anxiety the results of table No.—1 are very clear and are evident to say that those subjects who score high on manifest anxiety scale also secure more marks on educational performance. This, like the findings of Besch (1959), Farber (1953), Sinha and Singh (1958), Spence and Farber (1953), Spence, Taylor and Rhoda (1956), Taylor (1951) and Taylor and Chapman (1955), makes us to believe that manifest anxiety possesses the drive properties. However, these findings are not consistent in the case of male subjects (Table No.—2) and female subjects (Table No.—3). In the case of male subjects there is no difference between the performance scores of M. A. and L. A. group, but, H. A. group secures more performance scores than those of M. A. and L. A. groups. Perhaps. this is because that the male subjects are not drived by the low level of manifest anxiety for their better educational performance or the low level of manifest anxiety, as measured by Sinha's anxiety scale, is the minimum normal level of anxiety which is always present in them hence it does not serve as the driving force. The moderate level of the manifest anxiety, as per results, appears to be the minimum essential level of manifest anxiety for the male subjects from where they start for the better educational performance and go on in their educational performance with the increase in the manifest anxiety. High level of manifest anxiety is best for them as it puts them on the best educational performance.

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On the other hand, the performance scores of the female subjects (Table No.—3) show a different trend. Their M. A. group secures more performance scores than that of L. A. group, and H. A. group does not differ from that of M. A. group. Perhaps, this is because that the low level of manifest anxiety, as measured by Sinha's anxiety scale, is the minimum essential level to drive the female subjects for their better performance and thereafter they go up in their performance with the increase in the levels of their manifest anxiety reaching the culmination of their performance at the moderate level of manifest anxiety. High level of manifest anxiety makes them over-anxious with which they fail to cope up. That is why, perhaps, high level of manifest anxiety did not drive them for further improvement in their educational performance. Thus, the mechanism of manifest anxiety possesses the driving properties but works differently for male and female subjects.

So far the performance of those male and female subjects who belong to the equal levels of manifest anxiety, age group and educational background is concerned the results of this study do not agree with that of Sarason (1959). The educational performance scores of the female subjects are higher than those of the male subjects at the moderate level of manifest anxiety. The performance scores of male and the female subjects do not differ at H. A. and L. A. levels but the superiority of the male subjects at H. A. level and the superiority of the female subjects at M. A. and L. A. levels can be noted on the performance scores.

The entire discussion leads to conclude that manifest anxiety possesses the drive properties as advocated by Farber (1954), Spence, Farber and McFann (1956) and Taylor (1956). This study proves the first presumption that the subjects belonging to the higher level of manifest anxiety would secure more performance scores than those who belong to the lower levels of manifest anxiety but disproves the second presumption that the performance scores of those male and female subjects who belong to the equal levels of manifest anxiety, age group and the educational background would not differ. However, the inconsistent results lead to say that the mechanism of manifest anxiety works differently for male and female subjects.

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Indian Psychologicl Review.
1976, Vol. 13, No.2, p. 31-35 *Research Report*

A COMPARATVE STUDY OF THE PERSONALITY AS MEASURED BY FACTORS A, C, E AND Q_4 OF THE PRO-MANAGEMENT AND ANTI-MANAGEMENT EMPLOYEES IN A TFXTILE INDUSTRY

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INTRODUCTION

The predominant tradition in Industrial Psychology as well as in Unionist thinking is to attribute industrial unrest to an unsatistactory environ ment and lack of facilities in conditions of work. However, improve ment in conditi ons of work in itself is insufficient without increase in employees' motivation to work likewise. Several studies, (Redfield, 1948; Uhbrock, 1934; R. M. Dorcus, 1954; Howard Martin, 1944; Chatterji R;, 1951; Ganguli. T, 1953; Ganguli, H. C. 1954; Saksena, Kapoor and Seth, 1973) have given importance to the employees' attitudes and their personality as playing an important role in the industrial unrest. The industrial psychologists have established that it is the human factor in industry which largely contributes to industrial peace and productivity. Out of the human factors the attitudes of workers toward management is the most important because it is directly related to production (Ganguli, T. 1953). Sinha, D. (1956,57) has related an attitude of dissatisfaction, unrest, lack of interest in the job or real or imaginery grievances to absenteeism which is an indicator of lowered efficiency, Sinha, A. K. P. (1963) found a significant positive correlation between Manifest Anxiety Scores of 110 workers and the number of days absented during the year.

Every worker is subject to cross-presurres for loyalty to see the two membership groups the company and the labour union (Ganguli, H. C. 1956). Sirota (1959) concludes that promotional frustration affects employees' understanding and attitudes towards management. Sinha, D., and Sharma, K. C. (1962) established the relationship between union-attitude and job satisfaction. Pestonjee (1973) has tried to establish relationship between organisational structure and job attitudes. From the persual of the above studies we can safely say that attitudes (pro or anti) are related to their personality characteristics. Keeping this into consideration the present study was conducted to ascertain comparatively the personality characteristics as measured by factors A, C, E and Q_4 of Cattell and Eber's 16 P-F Questionnaire of the pro-management and anti-management employees.

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METHOD

Sample : 100 anti-management and 100 pro-management textile workers of J. K. Cotton Wvg. & Spg. Mill, Kanpur were the subjects in the present study. They were classified as anti-management or pro-management after administering an attitudes scale as developed by Kapoor, K. D. (1972).

Instrument : Attitude scale as developed by Kapoor K. D. (1972) was administered to locate the pro-management and anti-management employees. After locating 200 such employees 16 PF-Questionnaire as adopted in Hindi by Kapoor S. D. was administered to find out scores on factors A C E and Q_4. Since the entire tool consists of 187 items, it was not feasible to administer the items of all the factors. That is why some four important factors out of 16 have been selected for study, on which the Anti-management and Pro-management employees were likely to be different.

RESULTS

With a view to achieve two groups of anti-management employees and pro-management employees each consisting of 100, for their detailed personality study, the investigators found 112 pro-management employees, 196 natural employees, and 152 anti-management employees, when the attitude scale was administered on 460 workers. It shows that out of total employees surveyed, 24·36% were found to be pro-management employees, 42,60 were found to be neutral employees and 33·04% were found to be anti-management employees.

To know whether both the groups (anti-management and pro-management) differed significantly, the analysis of variance was computed. The following table gives the means and *F* values of both the groups of the respondents.

Factor	Means		*df*	*F*	
	Pro	Cnti			
Factor A (Reserved Vs. Out going)	7·96	11·59	1/198	194·35	Highly Sig. at ·001 level
C. Affected by feelings vs. Emotionally Stable	12·07	11·66	1/198	·61	Not Sig.
E. Humble vs. Assertive	7·29	13·33	1/198	297·57	Highly Sig. at ·001 level.
Q4 Relaxed vs. Tense	7·87	15·94	1/198	257·61	Highly Sig. at ·001 level.

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DISCUSSION

The mean of the pro-management employees on factor-A Reserved vs. Outgoing is 7·96 as compared to the mean of 11·59 of the anti-management employees. Thus the mean of the former group is significantly lower than the mean of the latter group because derived *F* 194·35 is much greater than *F* at ·001 level, thus it is highly significant.

The lower mean of the pro-management employees shows that they are reserved, detached critical and cool. The high mean of the anti-management employees shows that they are easygoing, emotionally expressive and warm-hearted, participating and less afraid of criticism. Since anti-management employees by virtue of their high scores on this factor are emotionally expressive participating, attentive to people, they interact more frequently with their friends and colleagues, than those who are reserved. This provides them with an opportunity to exchange views, give and receive information and interact with union leaders. They are also likely to be information dependent upon union leaders and other employees having anti-management attitudes. Thus out going employees due to their personality make up have a better opportunity to develop anti-management attitudes than the reserved ones.

On Factor C, Affected by feelings versus Emotionally stable the mean of the pro-management employees is 12·07, as compared to mean of 11·66 of the anti-management employees. Thus the mean of the two groups does not differ much because the derived *F*. 61 is much lower than the needed *F* at ·01 level thus it is not significant.

With reference to factor-E Humble vs Assertive the mean of the pro-management employees was found to be 7·29 as compared to the mean of 13·33 of the anti-management employees. Derived *F* 297·57 is very highly significant. *P* is less than ·001). Thus it can be inferred that pro-management and anti-management employees differ significantly in regard to this trait. The lower mean of the Pro-management employees indicates that they are mild, accomodating, conforming and give way to others. Pro-management employees tend to be docile. They are submissive and easily managed. The high mean of the anti-management employees on this factor shows that they are assertive, dominant, self-assured and independent-minded. They tend to be austere, hostile or extrapunitive, authoritarian (Managing other) and disregard authority. As anti-management workers score high, it means that they are assertive and disregard authority. Their indulgence in strikes, lockouts, sabotage and absenteeism etc. and participation in the activities of protest being organised by the union are likely to be in fluenced by this personality trait. They are hostile personalities and thus develop themselves as potential agitators. On the other hand as pro-management workers score low means they are submissive, mild and accomodating. They try to adjust themselves according to the changing conditions of the factory but never express hostility or extrapunitive feelings. Being docile that are not potential agitators and are quite indifferent to union activities. This important finding proves that pro-management and anti-management workers

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basically differ in their personality specially in regard to this trait humble vs. assertive. Side by side it also verifies the assumption that anti-ness or pro-ness is likely to be the function of personality make up in regard to this factor.

On Factor-Q_4 Relaxed vs. Tense, the mean of the Pro-management employees is 7·87, as compared to the mean of 15·94 of anti-management employees. Derived F 257·61 is significant at ·001 level. The lower mean of the pro-management employees reveals that they are relaxed, tranquil, unfrustrated, torpid, composed and satisfied. In some situations their oversimplification can lead to laziness and low performance, in the sense that low motivation produces little trial and error. On the otherhand high mean score of anti-management employees shows that they are tense, frustrated, driven, overwrought, their work performance may be disrupted due to high frustration level. Anti-management employees are excitable, restless, fretful and impatient. They are often fatigued but unable to remain inactive. In groups they take poor view of the degree of order liness, unity and Leadership. Their frustration represents an excess of stimulated but undischarged drive. Their tense state of mind always make them restless to indulge in planning and indulging in anta-gonistic activities against management. Such a high F of 257·61 on this factor indicates that Pro-management and anti-management employees differ abundantly on this factor relaxed versus tense. This is one of the very significant finding which once further proves that anti-ness or pro-ness is likely to be the function of personality makeup of the employees. This is however not to mean that in all cases employees develop pro-or anti attitudes due to their personality make up. In some cases managerial policies, unionist propaganda, and the over all environment of the work place may also be attributed to the development of attitudes towards manegement. The investigators simply mean that there are certain personality factors which are more susceptible or prone to the development of a particular type of attitude towards management.

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Indian Psychological Review
1976, Vol. 13, No. 2, p. 36—40

JOB-INVOLVEMENT AND PERCEIVED IMPORTANCE OF JOB FACTORS

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White collar employees from various offices, banks etc. completed the Lodahl-Kejner Job-involvement Scale and rated 10 selected job-factors with respect to their perceived importance. Median of *JI* Scores served as the basis for forming the high and low job-involvement subgroups. The hypothesis that the high job-involvement group would assign greater importance to motivator variables than the low job-involvement group, was not supported. Similarly, job-involvement and each of the rating categories of perceived importance were independent of each other.

INTRODUCTION

Job involvement has been defined as "the degree to which a person is identified psychologically with his work, or the importance of work in his total self-image" (Lodahl & Kejner, 1965). The job-involved person is thus characterized as one for whom work is an important part of his life. He is concerned very much about his work and is committed to it. He has a deep sense of duty in his work. Bass (cited in Weissenberg & Gruenfeld, 1968) has recognized job-involvement and has found that the following conditions lead to the strengthening of job-involvement. Opportunity to make more of the job decisions, the feeling that one is making an important contribution to company success, Recognition, achievement, self-determination and freedom to set one's own work pace. There are a few studies which have delt with the relationship between job satisfaction and job-involvement. Wessenberg and Gruenfeld (1968) found that job-involvement was positively related to satisfaction with motivator variables and not with hygiene variables. Mukherjee (1969), on the other hand, found in the Indian context that there was a lack of relationship between job-involvement and each of the motivator variables studied. Since no study, in the Indian context, has directly explored the relationship between job-involvement and perceived importance of job factors among white collar employees, it was decided to take up this problem for investigation. The present investigation, therefore, aims at knowing the relationship between job-involvement and the perceived importance of various job factors. How important a job is to an employee's self image is the essential prerequisite to job-involvement. There fore, it was hypothesized that persons with higher job-involvement would assign greater

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importance to factors which will help them in gratifying their higher order needs than those with lower job-involvement.

METHOD

Sample : The sample of this study consists of 92 white collar employees, both male and female, working in offices, banks and doing technical and scientific work in government and semi-government departments at Nagpur. Most of them were graduates and a few were matriculates. None was below matric level.

Tools used : The following tools were used for collecting data. (1) *Rating Sheet for perceived importance.* (2) *Lodahl and Keiner's job-involvement scale.*

(i) *Rating sheet for perceived importance of job factors.* This sheet contained ten selected job factors. The employees were requested to indicate how important each of the given factors was to them in their job. For each job-factor, one of the following alternatives was to be checked.

(i) of extreme importance to me,
(ii) very important to me,
(iii) of moderate importance to me,
(iv) of little importance to me,
(v) of no importance to me.

A score of 5 was assigned to the first alternative (i. e., of extreme importance to me) down to a score of 1 assigned to the last alternative (i. e., of no importance to me).

(2) *Job-involvement Scale.* This scale, developed by Lodahl and Kejner (1965), consists of 20 items. But a shorter scale consisting of 6 items, selected from the 20-item scale, has been developed by the authors, and it is this shorter scale which was used in the present investigation. The correlation between the shorter scale and the 20-item scale was reported to be 0·87. The split half correlation of this scale was reported to be. ·57 and its reliability was estimated to be. 73. The construct validity of the 20-item scale was demonstrated by relating J I score to Ghiselli Self-Description Index and the Ohio State Leader Behaviour Description Questionnaire scores within the groups of Ss employed.

Of the six items, the first five are scored in a positive direction from 1 (Strongly Disagree) to 5 (Strongly Agree). The last item is scored in reverse. A higher total score indicates higher involvement.

Procedure. Almost all the Ss were contacted through their Union leaders and the questionnaries were distributed to them. The questionnaries were to be filled by them during their leasure time and to be returned within two days.

RESULTS

On examining that the scores on job-involvement scale were normally distributed, the *S*s were divided into two groups by taking median as a cutting point. Those who were above the median were considered as having higher job-involvement and those below it as having lower job-involvement. Thus there were 44 employees in the higher job-involvement group and 48 employees in the lower job-involvement group. But, for the computational ease, 40 Ss from each group were selected randomly. In this way, responses of 80 Ss were put to statistical analysis. The mean ratings of the perceived importance of the ten job-factors of high job-involvement and low job-involvement groups are shown in Table 1.

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Table—1 Mean Ratings of Perceived Importance of job Factors of High job-involvement and Low job-involvement Groups.

Job Factor	(A) High Job-involvement Group		(B) Low job-involvement Group.	
	Mean Rating	Rank	Mean Rating	Rank
Feeling of Security in the Job	4·35	2	4·20	3
Adequate pay	4·40	1	4·50	1
Opportunity for association and lasting friendship with colleagues.	3·50	9	3·90	7
Adequate personal benefits.	3·45	10	2·80	10
Prestige involved in the job.	3·95	6	4·00	6
Recognition for accomplishment in the job.	3·70	8	4·05	5
Scope for utilizing one's abilities.	4·05	5	4·30	2
Feeling of worthwhile accomplishment.	3·85	7	3·50	9
Opportunity for independent thought and action.	4·25	3	4·15	4
Opportunity for advancement.	4·15	4	3·85	8
AB=0·73 .....Significant beyond ·05 level.				

A chi-square test of independence was run to determine whether or not the frequencies of responding to varions categories of rating of importance of job factors and the extent of job–involvement were associated and job-factor wise chi-square was computed. The results of this kind of statistical analysis are presented in table. 2.

Table No. 2
Factorwise Chi–square Values.

S. No.	Job factors	X^2 ❖
I	Feeling of security in the job	0·72
II	Adequate pay	0·26
III	Opportunity for association and lasting friendship with colleagues	8·55
IV	Adequate personal benefits	8·27
V	Prestige involved in the job	6·04
VI	Recognition for accomplishment in the job	5·30
VII	Scope for utilizing one's abilities	3·67
VIII	Feeling of worthwhile accomplishment	3·53
IX	Opportunity for independent thought and action	1·89
X	Opportunity for advancement	5·77

[1] All chi-square values are statistically insignificant.

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DISCUSSION

There were 10 job factors to be rated for their importance. It is clear from table 1 that highest rank has been, assigned to adequate pay by both high and low job-involvement groups and therefore, it can be said that adequate pay, which is a hygiene factor, is the most important irrespective of the extent of job-involvement. This demonstrates that whether an employee identifies psychologically with his work or not, the importance of 'adequate pay' as the most effective incentive remains unchanged.

Further. it is revealed in Tabie 1 that feeling of security, another hygienic factor, is relatively more important than the motivation factors. This holds true with both high and low job-involvement groups, except that in the case of former group, it has been assigned "second" position and in the case of latter "third" position. The greater importance attached to this factor shows that an employee may or may not regard his work as important part of his self-image, but whatever kind of work he does should ensure adequate 'security' because he cannot afford to loose it in the face of mass unemployment which is prevailing in this country. The remaining hygiene factors, eg adquate personal benefits etc. seem to be relegated to the background as is clear from the rankings that have been assigned to these factors and reported in Table No. 1. It is interesting to note that although the motivator variables, in comparison to hygiene variables, have occupied secondary importance for the employees irrespective of the extent to which they are involved in their job, it seems that these factors also enjoy considerably higher importance in the job situation. This will be clear, again, from Table 1. Employees with lower job-involvement, for example, have assigned 'second' position to 'scope for utilizing one's abilities.' The higher importance of this factor for those with less involvement shows that for these employees the kind of work they have to perform should be such that there is enough scop for utilizing their abilities. Perhaps their present work is not of such type and so there is lesser involvement with it on their part. Thus, their stress on this factor seems to be justified. Similarly, the greater importance, attached to 'opportunity for independent thought and action by employees with more job-involvement may mean that they should always feel a sense of responsibility in their job. Since these employees are already involved more in their job, the greater sense of duty in them would keen them continuously preoccupied with the work.

The overall picture of the mean ratings of the perceived importance of the high and low job-involvement groups, show that there is a great deal of agreement between these groups, The significant rank difference correlation of 0·73 shows that the two groups do not differ much in their frame of reference in the perceived importance of job-factors. Similarly, the factorwise non-significant chi-square values, as reported in Table 2, show that the frequencies of respounding to five categories of perceied importance and the exetent of job-involvement are not associated. To sum up, as job-involvement is concerned with 'Psychological indentifi-

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cation with work, it is logical to contend that the job-involved person would place greater emphasis on the factors that can help him in gratifying his higher order needs. Therefore it is clear that the finding of this piece of research do not confirm the hypothesis involved in the study. But it does not mean that motivator variables, which according to Maslow (1954) occupy a higher level in need hierachy, are of little significance in the Indian job situations. Because, greater importance has been attached to these factors too. Thus, it can be concluded that both motivator and hygien variables do influence the employees' frame of reference irrespective of the extent to which they are involve in their job.

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Indian Psychological Review RESEARCH REPORT
1976, Vol. 13, No. 2, p. 41-42

CONSTRUCTION AND STANDARDISATION OF AN ACHIEVEMENT TEST IN CIVICS

Durga Srivastava

Banaras Hindu University, Vanarasi—

Problem : The present study consists of construction and standardization of an achivement test in civics for high school classes of Uttar Pradesh. The test covers the entire syllabus prescribed by the Board of High School Examination in Civics. The test is expected to be useful not only for measuring pupil's achivement in civics but also for purposes of promotion, guidance, comparison and selection of students for higher education. The test is constructed in Hindi which is the language of the state.

Procedure : A perusal of the prescribed syllabus reveales that entire course can be divided into four major areas of study, viz; civics and citizenship; State and Government, Indian Consitution and administration. These areas form separate subjects. We have add one more subtest to these, namely, applied civics which measures the extent to which aims of teaching civics have been realised.

Item-construction & Analysis : Two-hundred seventy-five multiple-choice items have been constructed for the first draft of the test. Analysis of items has been carried out for final selection. To estimate the discrimination power of items the Phi-cofficient for each item against the criterion of the total score on the test has been computed. Twenty five items were selected for each of the five subtests The Phi-coefficient of the 125 selected items range from .26 to .74 (Mean Phi-coef. being .47). Selected items were rearrange in an increasing order of difficulty and and were accordingly reseralised. The time-limit of the test has been fixed at 50 minutes on the basis of results obtained.

Result :

Validity : We have ensured formal validity of our test items by obtaining the consensus of three experts of the subject in regard to the adequancy of content, alternative responses and also the choices of correct answers. Experimentally we have obtained validity of the test by the following methods : (a) Item validity against the criterion of total scores=47, (2) Validity against the criterion of examination scores=90 and (c) Validity against the criterion of teachers judgement=84.

We have undertaken a cross-validation study as well on a sample of 350 cases. We find that the results obtained on the standardisation samples also taken at random from the population for which the test is meant.

✤ Ph. D. awarded in 1970 by the Banaras Hindu University, under the supervision of Dr. M. S. L. Saxena.

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Reliability : We have estimated the reliability of the test and the subtests by three methods cited below (a) Test-Retest Elements A=·98, B=·96, C=·96. D=·96, E.88; Total Scores .98 (b) Split-Half Technique : Element A=·98, B=·99, C=1·00, D=·99, E=·98, Total Score=·99 (c) Rational Equivalence : Element A=·84. B=·87, C=·88, D=·88, E=·91.

Norms : As we find no significant different between various regions we felt satisfied that scales of norms prepared for the entire state would be equally applicable and valid for various religions also. Three sets of norms have been prepared to suit the varied needs of potential users. These are : Percentile norms, T—scores and stanine norms.

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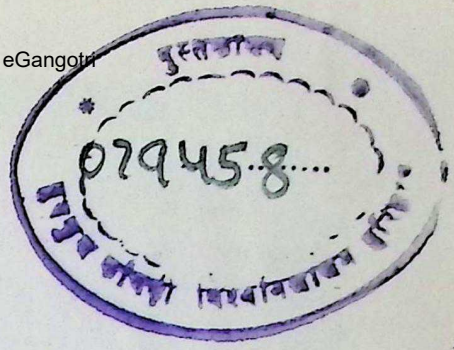

BOOK REVIEW

Indian Psychological Review
1976, Vol. 13 No. 2. p. 43.

PERSONALITY DYNAMIC : DEVELOPMENT AND ASSESSMENT HARCOURT, BRACE & WORLD INC. NEW YORK. 1969, P. 859. *Edited by* : *Irving L. Janis.*

The main purpose of this book is to give a sound introduction to scientific study of personality. The four parts of this book have been written by distinguished pychologists. Part I written by Irving L. Janis, deals with stress and frustration, part II by George F. Mahi deals with conflict and defence, part III by Jerome Kagan, discusses about the personality development and part IV by Robert R. Halt deals with personality assessment.

In all the chapters an attempt has been made to convey the relation between theoretical contributions and empirical investigations. The authors have also tried to show the contemporary relevance of learning theories, psychoanalysis, and other theoreetical approaches that have influenced personality research during the past half century as well as the recent developments in cognitive theories.

The chapters are written in a clear and concise style. The organization is such that it presents a clear, comprehensive and integrated picture of the various aspects of personality. The book is quite useful for the students of Psychology and Education.

—*P. N. RAI*

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